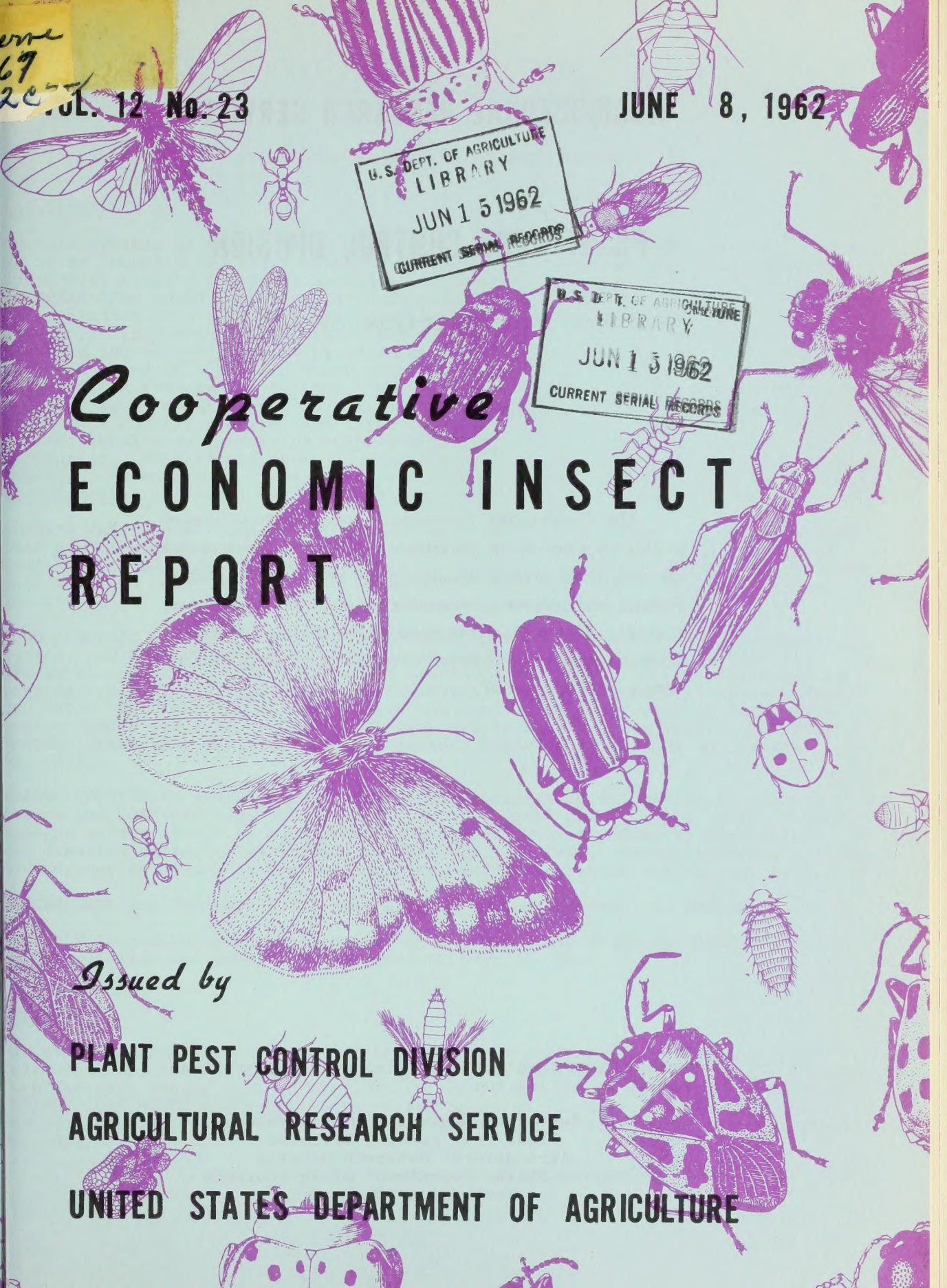


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Cooperative ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION

AGRICULTURAL RESEARCH SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

SURVEY AND DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearinghouse and does not assume responsibility for accuracy of the material.

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Survey and Detection Operations
Plant Pest Control Division
Agricultural Research Service
United States Department of Agriculture
Washington 25, D. C.

COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Several species of GRASSHOPPERS causing concern in several south central counties of Texas, populations threatening in some areas of Oklahoma, and Melanoplus spp. increasing rapidly in grassy roadsides in east-southeast Illinois. (p. 581). EUROPEAN CORN BORER beginning to cause noticeable injury to whorls and leaves of early planted corn in 3 Maryland counties, and egg masses present in Arkansas and Missouri. (pp. 581-582). SOUTHWESTERN CORN BORER egg deposition underway in Arkansas, and survey shows 38 infested counties in Mississippi. (p. 582). ARMYWORM outbreak noted in 4 Eastern Shore counties of Maryland and several localized infestations reported in Indiana. CORN EARWORM damage light to locally heavy on corn and grain sorghum in 3 central Texas counties; heavy on peanuts and soybeans in Pulaski County, Georgia; and light on corn in northwest Arkansas. (p. 583). Crested wheatgrass damaged by PLANT BUGS locally in South Dakota, Colorado and Washington. HESSIAN FLY found in most wheat in central and 2 south central Kansas counties; as many as 6 "flax-seeds" per stem. (p. 584). An ERIOPHYID MITE (Aceria neocynodonis) extremely heavy in many lawns in Dona Ana County, New Mexico. (p. 585).

ALFALFA WEEVIL continues damaging to alfalfa in several states (p. 585), and BEAN LEAF BEETLE damaging soybeans in 2 Maryland counties and removed 14 percent of leaf area on soybeans in east district of Illinois (p. 586). THRIPS damaged corn in 2 Maryland counties and light to moderate on peanuts in 4 Georgia counties. (p. 588).

PLUM CURCULIO activity at, or nearing, peak in several Eastern and Midwestern States, and CODLING MOTH larvae active in several states from California to New York. ORIENTAL FRUIT MOTH caused considerable concern in peach orchards in several areas of California and larval activity noted in number of other states. (p. 589). EUROPEAN RED MITE unusually abundant for time of year in Ohio, with severe damage possible, and buildups reported in Michigan and Kansas. (p. 590). WESTERN GRAPE LEAF SKELETONIZER infestations reported in Arizona and Nevada. (p. 591).

MEADOW SPITTLEBUG extremely abundant on strawberries in Willamette Valley of Oregon and HORNWORM eggs present on tobacco in North Carolina. (p. 594). THRIPS causing severe damage to some cotton in northern Dona Ana County, New Mexico, and damaging cotton in some areas of Oklahoma. (p. 595). Two FLEAHOPPERS continue to increase on cotton in some central and southeast Arizona cotton. (p. 596).

CANKERWORMS and ELM LEAF BEETLE damaging in several states. (p. 598).

HORN FLY increasing on cattle in most areas, and HORSE FLIES and DEER FLIES becoming active and annoying in several states. (p. 601).

DETECTION

New state records reported were an ANT (Pheidole californica pyramidensis) in California (p. 604); a WEEVIL (Apion hibisci) in Maryland (p. 599); and a COCCID (Lepidosaphes yanagicola) in Maryland (p. 600). New county records were SOUTHWESTERN CORN BORER in several Mississippi counties (p. 582); CLOVER SEED WEEVIL in Clark County, Illinois (p. 586); and PEAR PSYLLA in Ventura County, California (p. 589).

(Continued on page 580)

CORRECTIONS

See page 604.

SPECIAL REPORTS

Interceptions of Special Interest at U. S. Ports of Entry. (p. 606).

Ochyromera ligustri, a New Pest of Ligustrum in the United States. (p. 607).

Status of Some Important Pests in the United States (Garden symphytan). (p. 609).

Reports in this issue are for week ending June 1, unless otherwise indicated.

WEATHER BUREAU 30-DAY OUTLOOK

JUNE 1962

The Weather Bureau's 30-day outlook for June calls for temperatures to average above seasonal normals over the southeastern quarter of the Nation. Below normal temperatures are predicted for areas lying west of the Continental Divide and from the Northern Plains eastward to the Great Lakes. In the remaining unspecified area, near normal averages with large fluctuations are indicated. Precipitation is expected to exceed normal over the northern half of the country and in the Central Plains. Subnormal rainfall is predicted for the Far Southwest and Southeast. Otherwise, near normal amounts are indicated.

Weather forecast given here is based on the official 30-day "Resume and Outlook" published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington 25, D. C. Price \$4.80 a year, \$2.40 a half year.

WEATHER OF THE WEEK ENDING JUNE 4

Weather, more typical of the season than the previous period, covered a major portion of the Nation during the week, and prolonged dry spells were ended in many sections of the southern Great Plains and Southeast. However, cool weather dominated the Pacific Northwest where Portland and Moro, Oregon, had their second coldest May in more than 60 years, and rainfall was a rarity in the Southwest and much of California. From the Mississippi Valley eastward, temperatures generally averaged warmer than normal. Departures were not excessive, however, but the mercury did not fall enough to keep some areas of Georgia from logging the hottest May on record. Hot was the word in Death Valley, California, on the 3d, when the temperature soared to 111° in contrast to the cooler than normal West.

Precipitation was quite general over much of the Plains States, the Mississippi Valley, and the southeastern quarter of the country. Throughout most of this area, amounts over 1.00 inch were common and many stations reported much larger totals. (Weather continued on page 596).

CEREAL AND FORAGE INSECTS

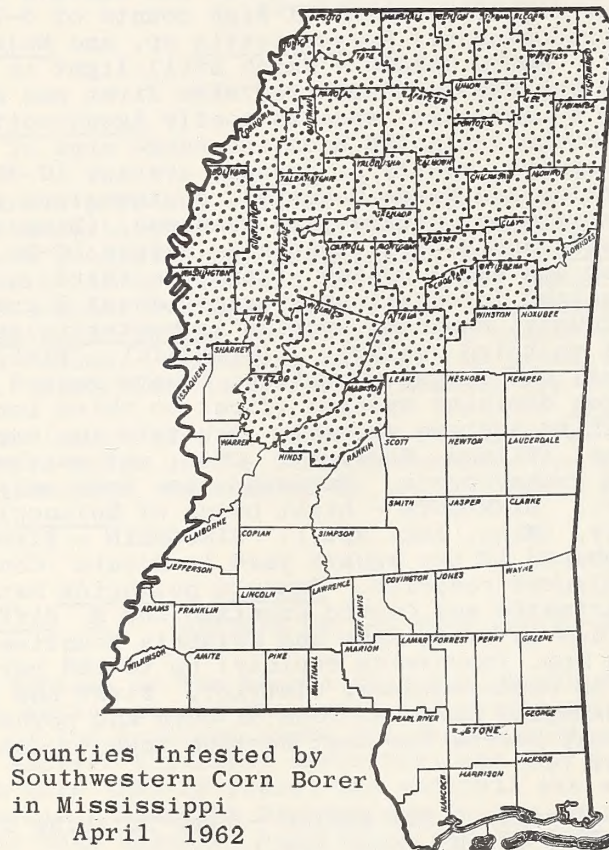
GRASSHOPPERS - UTAH - Counts 10-50 per square yard in Moab area and on 50,000 acres of Castle Valley in Grant County. Hatch light, late in Snowville-Blue Creek area of Box Elder County. (Thornley, Knowlton). **TEXAS** - Several species causing concern in several south central counties; nymphal populations up to 15 per square yard observed locally within area. (Sistrunk, Massey, Newton). **OKLAHOMA** - Surveys in south central counties of Carter, Garvin, Jefferson and Murray show threatening nymphal populations on both rangeland and crop margins. Range counts averaged 6-20 per square yard, with crop margins infested at rate of 8-25 per square yard; dominant species of Melanoplus bivittatus, M. femurrubrum and Mermiria maculipennis (second and third instars). Populations in Cimarron and Texas Counties, panhandle area, generally below threatening population level; dominant species Ageneotettix deorum, Amphitornus coloradus and Aulocara ellioti (second to fourth instar). Scattered light to threatening populations of Melanoplus spp. exist in north central area; populations 15-25 per square yard in alfalfafield margins and roadsides in Payne and Grant Counties. Lighter populations elsewhere in north central area. (Okla. Coop. Sur.). **KANSAS** - Counts in roadside margins in central and eastern areas generally less than 1 per square yard; occasional high counts of 5-7 per square yard noted. Species predominantly Hesperotettix sp. and Melanoplus bivittatus. (Painter, Peters). **SOUTH DAKOTA** - Hatch still light in Moreau River range area and in Dewey and Zieback Counties, with first and second instars numbering about 5 per square yard; species mostly Ageneotettix deorum and Melanoplus sanguinipes. (Burge). In Elk Mountain range area of Custer County (western area), grasshoppers, mostly A. deorum, average 10-20 per square yard. In Butte, Harding, Perkins and Meade Counties, northwestern area, only light hatches of 5-8 first instars per square yard observed. (Zimmerman). In southeastern area, M. bivittatus and M. differentialis ranged 10-20 per 100 sweeps in alfalfa, sweetclover and small grains (first to third stage nymphs). (Hintz). **NORTH DAKOTA** - Rangeland infestations averaged about 3 grasshoppers per square yard in McKenzie County; dominant species Ageneotettix deorum and Melanoplus sanguinipes (first to third instar). (Brandvik). Field infestations present in Ransom, Dickey and Sargent Counties; counts ranged 1-6 per square yard with M. sanguinipes dominant species (first to third instar). However, only few scattered third instars present. Habitats included soil bank, alfalfa and small grains. (Wilson, Schenck). Cool, wet weather past 2 weeks retarded development of grasshoppers. Emergence has been only 5 percent of potential. (N. D. Ins. Sur.) **MINNESOTA** - Light hatch of Melanoplus sp. noted on sandy soils in Anoka County. (Minn. Ins. Rpt.). **WISCONSIN** - First and second instars of M. sanguinipes numbered 15 per square yard in Oconto County alfalfafield, with 40 per yard on adjacent roadside. Camnula pellucida hatched and present along roadsides in Marinette and Oconto Counties and M. differentialis nymphs appearing along roadsides in Green Lake and Columbia Counties. (Wis. Ins. Sur.). **ILLINOIS** - Melanoplus spp. increasing rapidly; up to 108 per square yard observed in grassy roadsides in east-southeast district. First and second instars present and already damaging marginal rows of corn and soybeans beside hatching beds. Grasshoppers may become the most serious insect pests of field crops of 1962. (Ill. Ins. Rpt.).

RANGE CATERPILLAR (Hemileuca oliviae) - NEW MEXICO - Eggs hatching in rangeland areas near Farley, Colfax County. (N. M. Coop. Rpt.).

EUROPEAN CORN BORER (Ostrinia nubilalis) - ARKANSAS - Egg deposition beginning in northwest; very small numbers of egg masses found in tallest corn. (Ark. Ins. Sur.). **MISSOURI** - Egg masses observed in central and north central areas; counts ranged 0-80 egg masses per 100 stalks in central area (Fairchild) and 0-5 per 100 stalks in northern areas. Very few small larvae observed in these areas. (Munson, Thomas, Wood). **IOWA** - Pupation 94 percent and emergence 10 percent in Boone County. First adults of season caught in Ankeny light trap on May 19. Tallest corn 20 inches extended (Ankeny and Winfield) with average height in southeastern area 6-8 inches. Peak moth emergence expected about June 2, with continued warm

weather, and peak egg-laying should occur about June 9. This is much earlier than usual. (Iowa. Ins. Inf., May 25). MINNESOTA - Pupation 90 percent in Anoka County. (Minn. Ins. Rpt.). SOUTH DAKOTA - First pupa of season found May 29 in Union County. (Hintz). MARYLAND - First instars beginning to cause noticeable injury to whorls and leaves of early planted sweet and field corn in Dorchester, Wicomico and St. Marys Counties. (U. Md., Ent. Dept.). DELAWARE - First adult flight continues at a rather high level; 60 specimens taken in blacklight trap in Sussex County May 23-31. (Burbutis). NEW JERSEY - Moths observed in Burlington and Middlesex Counties. (Ins.-Dis.-Weed Newsltr., May 29). NEW YORK - Pupation 60 percent in Hudson Valley on May 22; no adults emerged. (N. Y. Wkly. Rpt., May 28).

SOUTHWESTERN CORN BORER (*Zeadiatraea grandiosella*) - ARKANSAS - Egg deposition underway in northwest; first instar found in cornfield in Benton County, northwest area (corn 2-3 feet high and tallest in area). (Ark. Ins. Sur.). MISSISSIPPI - Survey of 18 old corn fields in 16 counties revealed a population of 683 live larvae per acre. Survival of overwintering larvae 48 percent. Map below shows 38 infested counties in the State as of April 1962. (Henderson).



ARMYWORM (*Pseudaletia unipuncta*) - MISSOURI - Most larvae throughout State full grown; only small larvae observed in grasses and pastures. (Munson, Thomas, Wood). ILLINOIS - Larvae varied 0-2 per linear foot in standing wheat in west, central and east districts, and 3-5 per square foot in lodged wheat in east and east-southeast districts. Larvae of all sizes present. Few larvae killed by disease observed in east and east-southeast districts. (Ill. Ins. Rpt.). INDIANA - Localized infestation caused severe damage to 2 urban homesites and a grainfield

south of Vincennes; full-grown larvae extremely active about May 21. (Hamilton, May 29). Destroyed 75 acres of young corn in Jasper County, May 28. In this field, rye plowed down and corn planted immediately. Some infestations in rye and wheat fields. (Gould). MARYLAND - Outbreak numbers, necessitating extensive spraying, appeared in small grains, corn and pasture land in sections of Kent, Dorchester, Wicomico and Worcester Counties. Numbers have been especially heavy near Snow Hill and Berlin in Worcester County. (U. Md., Ent. Dept.). VIRGINIA - Activity reported in Henrico, King William and Prince George Counties and specimens received from several counties. (Rowell). DELAWARE - Larvae abundant in rye in one area of Sussex County (Bray, MacCreary) and adults now abundant in light trap collections (35 collected on May 30). (Burbutis).

CORN EARWORM (Heliothis zea) - TEXAS - Attacking terminal buds of corn and grain sorghum in Caldwell, Guadalupe and Hays Counties; damage variable, ranging from light to locally heavy. (Texas Coop. Rpt., Massey). ARKANSAS - Eggs light on corn in northwest; counts 5-8 per 100 plants. (Ark. Ins. Sur.). GEORGIA - Heavy infestations on peanuts and soybeans in Pulaski County. (Alligood). DELAWARE - First adults of season collected in blacklight trap in Sussex County on May 30 (4 specimens). (Burbutis).

CUTWORMS - MISSOURI - Continue to damage corn in north central area, especially corn delayed by dry weather. Majority of larvae three-fourths grown to mature, with few first and second instars present. Species mostly Feltia subgothica. (Munson, Thomas, Wood). ILLINOIS - Causing serious damage to corn in Adams, Livingston and Iroquois Counties; few observed elsewhere in State. Species probably Agrotis ipsilon. (Ill. Ins. Rpt.). IOWA - A. ipsilon caused moderate damage in Scott County and unspecified species noted in Decatur and O'Brien Counties. (Iowa. Ins. Inf., Underwood; May 25). WYOMING - Chorizagrotis auxiliaris larvae in wheat near Carpenter, Laramie County; averaged less than 1 per square foot. (Fullerton).

SOD WEBWORMS - IOWA - Damaging corn in Buena Vista County. (Iowa Ins. Inf., Nuss; May 25). PENNSYLVANIA - Crambus sp. abundant on 2 home lawns in Franklin County; causing spots. Birds making holes in lawns hunting larvae. (Pepper). NEVADA - C. bonifatellus adults on lawns in Fallon, Churchill County, and in Reno, Washoe County. (Bechtel, York).

CORN FLEA BEETLE (Chaetocnema pulicaria) - NEW YORK - Counts about 12 per 100 sweet corn plants in Hudson Valley; some Stewart's disease noted. (N. Y. Wkly. Rpt., May 28). MARYLAND - Adults light to moderate on field corn in Talbot, Dorchester and Wicomico Counties. (U. Md., Ent. Dept.). DELAWARE - Rather common on young corn in several areas of New Castle County. (Burbutis). ARKANSAS - Small numbers, 10-15 per 100 plants, on corn in northwest. (Ark. Ins. Sur.).

DESERT CORN FLEA BEETLE (Chaetocnema ectypa) - UTAH - Continues damaging to corn in "Dixie" area of Washington County. (Knowlton).

SOUTHERN CORN ROOTWORM (Diabrotica undecimpunctata howardi) - IOWA - Adults very abundant, average 1 per linear foot of row, in early planted corn at Ankeny; severe feeding damage noted on 10-12 inch corn. (Iowa Ins. Inf., Dicke; May 25). NEBRASKA - Adults averaged 4 per sweep on Gage County alfalfa. (Bergman).

A CHRYSOMELID - KANSAS - Unidentified species feeding on young corn in Dickinson County, central area. Populations appeared to be less than 1 per 100 plants and serious damage not evident. (Peters).

JAPANESE BEETLE (Popillia japonica) - MARYLAND - Larvae caused severe injury to a lawn at Damascus, Montgomery County. (U. Md., Ent. Dept.).

BLUEGRASS BILLBUG (Sphenophorus parvulus) - MARYLAND - Adults caused light injury to young field corn at American Corners, Caroline County. (U. Md., Ent. Dept.).

WIREWORMS - IDAHO - Late instars of unspecified species infesting 9-acre field of wheat at Moscow, Latah County. Larval feeding caused approximately 50 percent loss of stand. (Fosberg, May 25). WYOMING - Limonius sp. averaged less than 1 per square foot in wheat near Carpenter and Burns in Laramie County. (Fullerton). IOWA - Unspecified species caused damage to seedling corn in Scott County. (Iowa Ins. Inf., May 25). ILLINOIS - Undetermined species caused 0-3 (average 0.6) percent damage to corn fields in east-southeast district. (Ill. Ins. Rpt.).

CORN LEAF APHID (Rhopalosiphum maidis) - NEW MEXICO - Becoming lighter in most barley throughout State. (N. M. Coop. Rpt.). TEXAS - Infestations widespread and variable in eastern one-half of State. Heavy, spotted infestations causing concern in Denton, Harris, Eastland and Hamilton Counties. (Texas Coop. Rpt.).

GREENBUG (Toxoptera graminum) - SOUTH DAKOTA - Averaged 2 per 10 sweeps on oats in Union County (Hintz) and counts relatively low in central and south central areas on winter wheat and spring grains (Orlob). MINNESOTA - Rarely found in central district; not found in east central district. (Minn. Ins. Rpt.). WISCONSIN - Found only in an occasional oatfield in Rock County and area adjacent to Mississippi River from Prairie du Chien north to southern Trempealeau County. No red leaf disease found. (Wis. Ins. Sur.).

ENGLISH GRAIN APHID (Macrosiphum granarium) - SOUTH DAKOTA - Relatively light on winter wheat and spring grains in central and south central regions of State. (Orlob). WISCONSIN - Increasing very slowly in oats; averaged 10 per 100 sweeps in southern, central, eastern and northeastern areas. (Wis. Ins. Sur.). ILLINOIS - Light, 0-40 per 100 sweeps, in wheat in east and east-southeast districts. (Ill. Ins. Rpt.).

CHINCH BUG (Blissus leucopterus) - ILLINOIS - Very light, 0-1 per linear foot, in wheat in east district. (Ill. Ins. Rpt.).

MEADOW PLANT BUG (Leptopterna dolabratus) - MISSOURI - Nymphs high in blue grass, fence rows and along roadsides. (Munson, Thomas, Wood). ILLINOIS - Nymphs varied 0-700 (averaged 237), adults 0-100 (averaged 50) per 100 sweeps in grass in east district. Corresponding figures in east-southeast district were 0-10 (averaged 1) nymph and 0-160 (averaged 56) adults. (Ill. Ins. Rpt.).

PLANT BUGS - IOWA - Adults and nymphs of undetermined species averaged 10 per sweep in headed bluegrass in Louisa County; "silver tip" appeared on 25 percent of heads. (Iowa Ins. Inf., May 25). SOUTH DAKOTA - Labops hesperius adults very heavy and destroyed 4-5 acres of crested wheatgrass in Jones County. (Mast). COLORADO - L. hesperius numerous on crested wheatgrass in Rio Blanco and Park Counties. (Hantsbarger, Ball, Cottrell). WASHINGTON - Thyrillus pacificus causing considerable damage to field of crested wheatgrass near Ephrata, Grant County. (Culp, Brannon).

HESSIAN FLY (Phytophaga destructor) - KANSAS - "Flax-seeds" found in most wheat in central area and in Stafford and Reno Counties, south central area, except where hail-damaged broken straws confused picture. As many as 6 "flax-seeds" found per stem. (Painter, Peters).

SEED-CORN MAGGOT (Hylemya cilicrura) - OKLAHOMA - Countywide in Ottawa County, northeast area. (Okla. Coop. Sur.).

WHEAT STEM MAGGOT (Meromyza americana) - NEBRASKA - Less than one percent of wheat infested in southern area. (Bergman). SOUTH DAKOTA - Adults averaged 1 per 10 sweeps in Lincoln County. (Hintz).

A SAWFLY (Dolerus unicolor) - ILLINOIS - Larvae vary 0-50 (average 12.5) per 100 sweeps in wheat in east-southeast district. (Ill. Ins. Rpt.).

BROWN WHEAT MITE (Petrobia latens) - COLORADO - Damaging wheat in Garfield County. (Hantsbarger, Felton, Cogburn).

WINTER GRAIN MITE (Penthaleus major) - SOUTH DAKOTA - Wheatfield in Haakon County infested; 4 per plant. (Orlob).

WHEAT CURL MITE (Aceria tulipae) - SOUTH DAKOTA - Small numbers found in several winter wheat fields in central and south central areas; some spread of wheat streak mosaic noted. (Hintz).

AN ERIOPHYID MITE (Aceria neocynodonis) - NEW MEXICO - Serious problem in Bermuda grass lawns in Dona Ana County. Extremely heavy in many lawns. Number of infestations this spring increased considerably over number found in 1961. (N. M. Coop. Rpt.).

ALFALFA WEEVIL (Hypera postica) - IDAHO - Larvae first found in Canyon County May 22; mostly first instar. Counts ranged 0-5 per sweep. No adults found. (Waters, May 25). Larvae abundant, 20 plus per sweep, in alfalfafield near Grandview, Owyhee County. Adults 2-4 per sweep in same field. (Waters, Gittins). Adults also 1-2 per sweep in alfalfa near Moscow, 3-5 per 25 sweeps at Lapwai, but scarce generally in Clearwater River area and at Lewiston. (Halfhill). NEVADA - Averaged 2-3 adults and 65-90 larvae per sweep in untreated fields near Gardnerville, Douglas County, and 25-35 larvae per sweep in several untreated fields in Sparks, Washoe County. In both localities, eggs still being laid and continuing to hatch. (Arnett). WYOMING - Larvae averaged 21 per 100 sweeps in alfalfa in Laramie County. (Fullerton). UTAH - Larval damage, retarded by storms and colder weather for 18 days, becoming more severe. Weather had not allowed cutting as a control measure. (Knowlton, May 29). COLORADO - Larvae abundant in untreated fields throughout State. Counts per 100 sweeps by county as follows: Larimer, 100-300 with 5-15 percent parasitized; Mesa, 300-400 with 40 percent parasitized; Delta, Montrose and Garfield, 20-70; Pueblo, Otero, Crowley, Bent and Prowers, 10-300. (Bulla, Schweissing, Jenkins). NEBRASKA - Ranged 0.2-2.8 per 10 sweeps in Dundy County. (Manglitz). MASSACHUSETTS - Counts per 100 sweeps in Berkshire County, May 23, as follows: Adult - 49, first instar - 3, second instar - 27, third instar - 9, fourth instar - 4. First eggs found in Amherst area May 27. (Wheeler). RHODE ISLAND - Larvae increasing; 40-250 per 100 sweeps in Kingston. (Kerr). NEW YORK - Evident in many alfalfa fields in Ulster County, but not causing serious losses. (N. Y. Wkly. Rpt., May 28). PENNSYLVANIA - Some fields of alfalfa in Centre, Huntingdon and Franklin Counties severely damaged; larvae starting to pupate in Franklin County. (Pepper). MARYLAND - Larvae averaged 3 per sweep on second-growth alfalfa in Worcester County; larvae also present and stunting second-growth alfalfa in Baltimore and St. Marys Counties. (U. Md., Ent. Dept.). VIRGINIA - Heavily infesting ladino clover on farm in Cumberland County (Peery, May 24) and local, severe, adult infestation on alfalfa at Palmyra, Fluvanna County (Rowell, Watts, May 28). SOUTH CAROLINA - Has been troublesome on alfalfa in Laurens County this spring. (Nettles et al.).

LESSER CLOVER LEAF WEEVIL (Hypera nigrirostris) - NEBRASKA - Adults averaged 6 per 10 sweeps on red clover in Gage County. (Bergman). ILLINOIS - Varied 0-120 and averaged about 50 per 100 sweeps in clover and alfalfa in east and east-southeast districts; mostly newly emerged adults. (Ill. Ins. Rpt.). MARYLAND - Larvae caused noticeable injury to red clover in Baltimore, Talbot and Worcester Counties. (U. Md., Ent. Dept.).

CLOVER HEAD WEEVIL (Hypera meles) - ILLINOIS - Adults varied 0-10 and averaged 2 per 100 sweeps in clover and alfalfa in east-southeast district. (Ill. Ins. Rpt.).

SWEETCLOVER WEEVIL (Sitona cylindricollis) - WYOMING - Adults averaged 14 per 100 sweeps in patches of sweetclover along roadsides north of Pine Bluffs, Laramie County. (Fullerton). UTAH - Severely notching sweetclover at Snowville and west in Curlew Valley, Box Elder County. (Knowlton). SOUTH DAKOTA - Averaged 7 per 10 sweeps in Lake County and 16 per 10 sweeps in Lincoln County. (Hintz).

CLOVER ROOT CURCULIO (Sitona hispidula) - UTAH - Some collected in most northern area fields. (Knowlton).

A WEEVIL (Sitona scissifrons) - SOUTH DAKOTA - Averaged 1-8 per 10 sweeps in alfalfa along eastern border of State. (Hintz). MINNESOTA - Averaged 20 per 100 sweeps on alfalfa in east central and central districts. (Minn. Ins. Rpt.).

CLOVER SEED WEEVIL (Miccotrogus picirostris) - ILLINOIS - Collected in Clark County, east-southeast district, on May 28, at rate of 20 per 100 sweeps in mixture of red and white clover. This is a new county record and is more than 100 miles from any other known infestation in State. (Ill. Ins. Rpt.).

A WEEVIL (Centrinaspis sp.) - ILLINOIS - Found in east-southeast district May 28; first observation of season. Adults varied 0-20 and averaged 5 per 100 sweeps. (Ill. Ins. Rpt.).

BEAN LEAF BEETLE (Cerotoma trifurcata) - MARYLAND - Adults caused considerable foliage injury to soybeans at several localities in Dorchester and Wicomico Counties. (U. Md., Ent. Dept.). ILLINOIS - Adults varied 0-300 (averaged 118) per 100 feet of soybean row and had removed 0-50 (averaged 14) percent of leaf area on beans under 4 inches in height in east district. Also present, 0-30 per 100 feet of row, in east-southeast district. (Ill. Ins. Rpt.). IOWA - Emerged and eating leaves of seedling soybeans in Monona County. (Iowa Ins. Inf., Rydel; May 25). SOUTH DAKOTA - Averaged 10 per 10 sweeps in alfalfa in Clay County. (Hintz).

PALE-STRIPED FLEA BEETLE (Systema blanda) - MARYLAND - Adults averaged 1 per sweep on second-growth alfalfa in St. Marys County. (U. Md., Ent. Dept.).

ASH-GRAY BLISTER BEETLE (Epicauta fabricii) - ILLINOIS - Observed on clover-alfalfa mixtures in east-southeast district May 28; first observation of season. (Ill. Ins. Rpt.).

PEA APHID (Macrosiphum pisi) - IDAHO - One per sweep in alfalfa near Moscow, 15-20 per sweep in Clearwater River area of Nez Perce County, near 5-10 per sweep at Lapwai, 10 per sweep south of Lewiston and approximately 2 per sweep in Lewiston Orchards area. (Halfhill). NEVADA - Averaged 30-40 per sweep in Gardnerville, Douglas County, and Sparks, Washoe County. (Arnett). UTAH - Populations have been generally light to moderate this season, with first crop injury to alfalfa being below average. (Knowlton). COLORADO - Light to moderate; counts 30-500 per 100 sweeps. (Schweissing, Bulla, Jenkins). NEW MEXICO - Generally medium throughout State. Beneficials keeping infestations below damaging level. (N. M. Coop. Rpt.). TEXAS - Populations in vetch in Rockwall County declined greatly and light, local infestations being found. (Irvin). Field peas in Henderson County heavily infested and controls necessary to check damage in many instances. (Spann). OKLAHOMA - Populations in north central area down considerably; 5-15 per 10 sweeps. Counts low in Lawton, southwest area; 18-20 per 10 sweeps. (Okla. Coop. Sur.). ARKANSAS - Counts very low; less than one per sweep in northwest. (Ark. Ins. Sur.). NEBRASKA - Light in southwestern area. (Manglitz). SOUTH DAKOTA - Counts 2 per 10 sweeps on alfalfa in central and south central areas (Orlob) and ranged 2-50 per 10 sweeps in southeastern and east central areas (Hintz). MINNESOTA - Counts per 100 sweeps in alfalfa averaged 110 in east central district and 140 in central district. (Minn. Ins. Rpt.). WISCONSIN - Continues to increase in alfalfa in most areas; counts per sweep by county as follows: Dane - 10, Columbia - 80, Marquette, Portage and Waushara - 30, Green Lake - 17, Sheboygan - 1.5, Manitowoc - 1.4, Oconto - 0.4, Marinette - 2, Shawano - 1 and Waupaca - 4. Disease and/or parasitism ranged about 20 percent for more heavily populated fields and winged forms not overly plentiful. Alfalfa beginning to blossom; winged forms expected to increase somewhat. (Wis. Ins. Sur.). IOWA - Increased to 10-20 per sweep in lush, vigorous, and in poor, stunted alfalfa and clover. (Iowa Ins. Inf., May 25). WYOMING - Averaged 82 per 100 sweeps in alfalfa in Laramie County. (Fullerton).

ILLINOIS - Very light, 2-16, and averaged 7 per sweep, in clover and alfalfa in east-southeast district. (Ill. Ins. Rpt.). RHODE ISLAND - Heavy in alfalfa in Kingston. (Kerr). PENNSYLVANIA - Heavy infestation in some alfalfa fields in Franklin County; crop ready to be harvested. (Pepper). MARYLAND - Ranged 5-10 per sweep on second-growth alfalfa in Worcester County; light on second-growth alfalfa in Baltimore and St. Marys Counties. (U. Md., Ent. Dept.).

SPOTTED ALFALFA APHID (Therioaphis maculata) - NEW MEXICO - Heavy in scattered fields in Dona Ana, Chaves and northern Eddy Counties; controls applied. Lighter in other areas of State. (N. M. Coop. Rpt.). OKLAHOMA - Counts continue low in north central (fewer than 10 per 10 sweeps) and southwest (30-40 per 10 sweeps) areas of State. (Okla. Coop. Sur.). ARKANSAS - Surveys in northwest negative. (Ark. Ins. Sur.).

TARNISHED PLANT BUG (Lygus lineolaris) - OKLAHOMA - Ranged light to heavy in alfalfa in north central area. Counts per 10 sweeps by counties were 6-8 in Noble, 25-40 in Kay, 8-10 in Grant and 20-35 in Garfield. Nymphs numerous in most fields. Counts 30 per 10 sweeps in Cordell area, west central section. (Okla. Coop. Sur.). KANSAS - Abundant in alfalfa in central and south central areas; counts of this species and Adelphocoris lineolatus averaged 100-400 per 100 sweeps. (Painter, Peters). SOUTH DAKOTA - Averaged 2-5 per 10 sweeps in Brookings, Moody, Minnehaha, Lincoln and Clay Counties on alfalfa. (Hintz). IOWA - Adults averaged 1-2 per sweep in eastern area alfalfa and clover. (Iowa Ins. Inf., May 25). ILLINOIS - Counts per 100 sweeps in clover and alfalfa were 0-100 adults (averaged 50) in east district and 0-40 (averaged 20) in east-southeast district, and nymphs 0-120 (averaged 42) in east-southeast district. (Ill. Ins. Rpt.). WISCONSIN - Nymphs averaged 2 per sweep in southern and central areas on alfalfa. (Wis. Ins. Sur.).

LYGUS BUGS (Lygus spp.) - ARIZONA - Averaged 100-400 adults and nymphs per 100 sweeps in alfalfa statewide. (Ariz. Coop. Sur.). NEW MEXICO - Becoming more plentiful throughout southern counties. Average per 25 sweeps in alfalfa 20-30 in Socorro County, 5-10 in southern Eddy and 30-50 in Dona Ana County. Causing heavy damage to one seed alfalfafield in Hatch Valley, Dona Ana County. (N. M. Coop. Rpt.). COLORADO - Moderate numbers in Arkansas River Valley and north-eastern area; 50-250 per 100 sweeps. (Jenkins). UTAH - Lygus spp. and L. elisus new adults appeared and nymphs generally numerous in northern area alfalfa. (Knowlton). WYOMING - Adults averaged 18 and nymphs 15 per 100 sweeps in alfalfa in Laramie County. (Fullerton). IDAHO - Counts 5-10 nymphs per sweep noted in an alfalfafield near Grandview, Owyhee County. (Waters, Gittins). Found in all stages of development in alfalfa south of Lewiston; 4 per sweep. (Halfhill).

ALFALFA PLANT BUG (Adelphocoris lineolatus) - IOWA - Nymphs averaged 2-3 per sweep in eastern area. (Iowa Ins. Inf., May 25). WISCONSIN - Nymphs becoming very common in alfalfa in southern and central areas; 10 per sweep in many fields. (Wis. Ins. Sur.). ILLINOIS - Adults per 100 sweeps in clover and alfalfa varied 20-100 (averaged 60) in east district and 0-20 (averaged 7) in east-southeast district. (Ill. Ins. Rpt.).

RAPID PLANT BUG (Adelphocoris rapidus) - WISCONSIN - Nymphs averaged 2 per sweep in alfalfa in southern and central areas. (Wis. Ins. Sur.). ILLINOIS - Adults per 100 sweeps in clover and alfalfa varied 40-200 (averaged 120) in east district and 0-90 (averaged 55) in east-southeast district. Nymphs varied 0-40 and averaged 13 per 100 sweeps in east-southeast district. (Ill. Ins. Rpt.).

SUPERB PLANT BUG (Adelphocoris superbus) - UTAH - Very light in alfalfa to May 29. (Knowlton).

MEADOW SPITTLEBUG (Philaenus spumarius) - MARYLAND - First adults of season observed May 31 on alfalfa in St. Marys and Worcester Counties. (U. Md., Ent. Dept.). NEW YORK - Populations very high in Ulster County alfalfa; loss of yield considerable due to plant stunting. (N. Y. Wkly. Rpt., May 28). ILLINOIS - Adults varied 20-60 and averaged 40 per 100 sweeps in clover and alfalfa in east

district, and 10-280 and averaged 83 per 100 sweeps in east-southeast district. (Ill. Ins. Rpt.). IOWA - Hatched, first and second instars averaged 1 per 10 stems. (Iowa Ins. Inf., May 25). WISCONSIN - Spittle masses becoming increasingly more noticeable; nymphs about half-grown in more advanced areas of State, although populations generally low. Counts 1 per stem on alfalfa in some more heavily infested fields. (Wis. Ins. Sur.).

SPITTLEBUGS - RHODE ISLAND - Spittle masses increasingly evident. (Mathewson). GEORGIA - Light infestations of first nymphs and adults of Prosapia bicincta on coastal Bermuda grass in Tift County. (Byars, May 20).

CLOVER LEAFHOPPER (Aceratagallia sanguinolenta) - SOUTH DAKOTA - Averaged 1-2 per 10 sweeps in alfalfa in Lake and Brookings Counties; also found in Moody, Lincoln and Union Counties. (Hintz).

POTATO LEAFHOPPER (Empoasca fabae) - MARYLAND - Adults averaged 1 per sweep on second-growth alfalfa in St. Marys County. (U. Md., Ent. Dept.). MISSOURI - Counts in central and north central areas ranged 3-21 per sweep; small nymphs present. (Munson, Thomas, Wood). ILLINOIS - Counts per 100 sweeps in clover and alfalfa varied 20-150 (averaged 72) adults and 0-100 (averaged 35) nymphs in east-southeast district. (Ill. Ins. Rpt.). WISCONSIN - Adults becoming common in alfalfa; occasionally found in oats. (Wis. Ins. Sur.). NEBRASKA - Counts 0.1-0.5 per 10 sweeps in Franklin and Webster County alfalfa. (Manglitz).

ALFALFA CATERPILLAR (Colias eurytheme) - NEW MEXICO - Adults and larvae present in most alfalfa checked in Bernalillo, Socorro, Valencia and Dona Ana Counties; counts averaged 7-15 per 25 sweeps in Valencia and Socorro Counties. (N. M. Coop. Rpt.). UTAH - Adults and larvae present in alfalfa in northern area, but rarely numerous. (Knowlton). IDAHO - Second instars causing noticeable damage to alfalfa in Payette County. (Matsen).

BEET ARMYWORM (Spodoptera exigua) - ARIZONA - Larvae 20-25 per 100 sweeps in areas of some Yuma County alfalfa fields. (Ariz. Coop. Sur.).

A THRIPS (Frankliniella occidentalis) - NEW MEXICO - Heavy in alfalfa in Dona Ana and Socorro Counties. (N. M. Coop. Rpt.).

THRIPS (undetermined) - MARYLAND - Caused noticeable streaking of field corn and soybeans in Talbot, Dorchester and Wicomico Counties. (U. Md., Ent. Dept.). GEORGIA - Light to moderate on peanuts in Pulaski, Tift, Cook and Coffee Counties. (Johnson).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - IDAHO - Reported abundant in 14-acre alfalfafield in Homedale area of Owyhee County; feeding causing considerable damage to crop. (Portman, May 25). Found abundant in a 15-acre field of alfalfa in Nampa area; mites being controlled by equally abundant populations of a predatory mite. (Bechtolt).

FRUIT INSECTS

PLUM CURCULIO (Conotrachelus nenuphar) - MASSACHUSETTS - Scars of feeding and egg laying easily found on untreated apples and peaches; 137 adults collected May 31 from count trees at Waltham, Middlesex County. (Crop Pest Cont. Mess.). CONNECTICUT - Activity increased suddenly after high temperatures; females very easily found in untreated trees in most of State. (Savos). NEW YORK - Feeding and egg laying noted in eastern area May 24 in apples. Injured plums and prunes in Nassau County and cherries in Orleans County. (N. Y. Wkly. Rpt., May 28). VERMONT - Activity extremely low, with no evidence of cutting in treated blocks; cool weather probably a factor. (MacCollom). SOUTH CAROLINA - Caused concern in ridge peach area. About one-eighth of total larvae in fruit on ground entered soil May 25. (Nettles et al.). OHIO - Oviposition very heavy in Wayne County. (Rings). INDIANA - Adults readily found in untreated orchards in Vincennes area,

Knox County; activity in commercial orchards light. (Hamilton, May 29). WISCONSIN - First feeding noted in Door County. (Wis. Ins. Sur.).

APPLE APHID (Aphis pomi) - CONNECTICUT - Becoming noticeable on suckers and terminal growth; populations expected to build up rapidly. (Savos). NEW YORK - Populations increasing on terminal growth and fruit clusters in some apple orchards in Clinton County; some alates noted May 23. Beginning to build up in Wayne County. (N. Y. Wkly. Rpt., May 28). PENNSYLVANIA - Beginning to appear on terminals of apples in Franklin County May 31. (Pepper).

ROSY APPLE APHID (Anuraphis rosea) - NEW YORK - Large numbers appearing in poorly treated orchards in Monroe County. (N. Y. Wkly. Rpt., May 28). COLORADO - Numbers light in Garfield County. (Bulla).

PEAR PSYLLA (Psylla pyricola) - CALIFORNIA - Medium infestation found on pear trees in Ventura County; this is a new county record. (Cal. Coop. Rpt.). CONNECTICUT - Adults extremely abundant in Storrs orchards, Tolland County; most nymphs in last instar. (Savos).

COCCIDS - INDIANA - Aspidiotus forbesi and A. perniciosus continue to hatch in orchards at Vincennes. (Hamilton, May 29). MICHIGAN - Lecanium corni females depositing eggs at East Lansing, Ingham County, and South Haven, Van Buren County. (Hutson).

CODLING MOTH (Carpocapsa pomonella) - NEW YORK - Flights began May 19 or 20 in eastern area; first larval entries expected about June 5. Unseasonably warm weather of May 14-20 in western area caused emergence and almost immediate egg laying; egg hatch expected as early as June 1 in some areas rather than June 10-20. (N. Y. Wkly. Rpt., May 28). PENNSYLVANIA - Entries noted in apples May 28 in Adams County; probably made 4 days earlier. (Asquith). MARYLAND - First hatch of season occurred at Hancock, Washington County, May 26. (U. Md., Ent. Dept.). INDIANA - First larval entries for season noted in Vincennes area, Knox County, May 24; adult emergence in orchards incomplete. (Hamilton, May 29). First entries in south central counties noted May 23; first-brood attack not expected heavy. (Marshall). MISSOURI - More entries noted throughout State. (Wkly. Rpt. Fr. Grs.). KANSAS - Many larvae full grown and ready to leave apples May 25 in Sedgwick County. Probably at peak emergence in Doniphan County May 28. (Eshbaugh). COLORADO - High counts in traps in Delta and Garfield Counties. (Bulla). UTAH - Heaviest flights in northern area occurred May 10. One adult taken at light trap at Logan May 31 after long, cool, stormy period without flights. (Davis, Knowlton). CALIFORNIA - Heavy, larval populations occurred in pears in Los Banos, Merced County. (Cal. Coop. Rpt.). IDAHO - Adult flights noted at Moscow, Latah County, May 30. (Portman).

EYE-SPOTTED BUD MOTH (Spilonota ocellana) - WISCONSIN - Feeding injury noted in Door County. (Wis. Ins. Sur.).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) - VERMONT - Activity low; hatch of tagged egg masses occurred week ending June 2. (MacCollom). RHODE ISLAND - Reported hatched at Gloucester, Providence County. (Mathewson). KANSAS - Pupae and late instars found in most apple trees examined in Doniphan County. (Eshbaugh).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - CALIFORNIA - Caused considerable concern in peach orchards in Live Oak-Rio Oso areas in Butte, Sutter and Yolo Counties and locally in Merced County. (Cal. Coop. Rpt.). KANSAS - Infestations light in well treated peach orchards in Sedgwick County May 25; some moths emerging. (Eshbaugh). MISSOURI - Larvae in peach terminals nearly fully grown; pupation expected within week. (Wkly. Rpt. Fr. Grs.). INDIANA - Activity of spring brood nearing completion; only occasional adult coming to bait traps. (Hamilton, May 29). OHIO - Twig infestations first noted at Marietta May 20. (Stacy). First-brood, twig-infesting populations higher than usual in Franklin and Wayne Counties. (Rings). NEW YORK - First entries in peaches noted May 21

in Niagara County. (N. Y. Wkly. Rpt.). CONNECTICUT - Larvae began tunneling into peach terminals at New Haven; not yet reported from other parts of State. (Savos). VIRGINIA - Infested terminals difficult to find. (Bobb, May 28). NORTH CAROLINA - Infested nectarine in Gaston County. (Robertson, Mount).

FRUIT-TREE LEAF ROLLER (Archips argyrospilus) - NEW YORK - Observed feeding on peaches in Orange County. Abundant in orchards this year in Wayne County. (N. Y. Wkly. Rpt., May 28). MISSOURI - First heavy emergence occurred in Columbia area, Boone County, May 23. (Wkly. Rpt. Fr. Grs.). WISCONSIN - Feeding injury noted in Door County. (Wis. Ins. Sur.).

LESSER PEACH TREE BORER (Synanthedon pictipes) - INDIANA - Adults started emerging from insectary cages at Vincennes, Knox County, May 28. First controls recommended between June 1 and 10. (Hamilton).

WESTERN PEACH TREE BORER (Sanninoidea exitiosa graefi) - WASHINGTON - Caused moderate to heavy larval infestations on peach and prune trees in lower Yakima Valley and Wenatchee area, Chelan County; more damage noted in these areas than in past. (Anthon, May 18).

PEACH TREE BORER (Sanninoidea exitiosa) - NEW MEXICO - Severe damage to peach trees in Valencia and Bernalillo Counties probably caused by this species. (N. M. Coop. Rpt.).

PEACH TWIG BORER (Anarsia lineatella) - UTAH - Damage in orchards in Salt Lake County variable; light in commercial, treated orchards. Moderate, general infestations in peaches this season. (Davis, Knowlton).

APPLE LEAF SKELETONIZER (Psorosina hammondi) - KANSAS - Caused defoliation on some branches in untreated check apple trees in Doniphan County. (Eshbaugh).

FLATHEADED APPLE TREE BORER (Chrysobothris femorata) - NEW MEXICO - Damage to young orchard in Valencia County probably caused by this species; about 10 percent of trees damaged. (N. M. Coop. Rpt.).

TARNISHED PLANT BUG (Lygus lineolaris) - NEW YORK - Injury quite easily found on apples in Westchester County. (N. Y. Wkly. Rpt., May 28).

EUROPEAN APPLE SAWFLY (Hoplocampa testudinea) - NEW YORK - Caused conspicuous secondary feeding injury in eastern areas; however, pest appears less abundant this season. (N. Y. Wkly. Rpt., May 28). CONNECTICUT - Tunneling out of apples and entering new fruit. (Savos).

EUROPEAN RED MITE (Panonychus ulmi) - MASSACHUSETTS - Weather conditions favorable for rapid buildup on apples. (Crop Pest Cont. Mess., May 31). VERMONT - Activity and hatch spotty in most orchards; no problem presently. (MacCollom). NEW YORK - Adults observed on apples in Clinton County May 21; some eggs present. (N. Y. Wkly. Rpt.). MARYLAND - Moderate numbers infested apples at Hancock, Washington County. (U. Md., Ent. Dept.). OHIO - Unusually abundant for early season, even in treated orchards; severe damage possible. (Cutright). MICHIGAN - Populations building up rapidly on apple at Paw Paw and Bangor, Van Buren County, and Benton Harbor, Berrien County. (Hutson). MISSOURI - Most growers obtained good control in orchards. (Wkly. Rpt. Fr. Grs.). KANSAS - Population and injury increasing in apple orchards in Doniphan County; some bronzing becoming noticeable where controls not applied. Ranged 0-50 per leaf, with egg counts as high as 100 per leaf. (Eshbaugh).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - OHIO - Found in several orchards. (Cutright). MICHIGAN - Populations very high on orchard cover, but not yet high on fruit trees. (Hutson). KANSAS - Counts ranged 0-5 per apple leaf in Doniphan County; averaged 2 mites and one egg per leaf. (Eshbaugh).

ORCHARD MITES - INDIANA - Populations vary extensively between orchards in Vincennes area, Knox County. Infestation records from 5 orchards checked May 9 showed mobile forms ranged 4-17 (average 11) and eggs ranged 0-40 (average 15.4). Same orchards checked May 24 showed mobile forms ranged 3-230 (average 52.5) and eggs ranged 5-505 (average 134.5). Most common species EUROPEAN RED MITE (Panonychus ulmi), but occasional TWO-SPOTTED SPIDER MITE (Tetranychus telarius) found. (Hamilton). Unspecified mites reproducing very rapidly in south central counties. (Marshall, May 29).

PEAR LEAF BLISTER MITE (Eriophyes pyri) - IDAHO - Infested pear leaves at Orofino, Clearwater County. (Fitzsimmons).

BLACK CHERRY FRUIT FLY (Rhagoletis fausta) - MICHIGAN - First appearance of adults noted at Sparta, Kent County. (Hutson).

CHERRY FRUIT FLY (Rhagoletis cingulata cingulata) - NEW YORK - Emergence started about May 25 in Orleans County. (N. Y. Wkly. Rpt.).

PECAN NUT CASEBEARER (Acrobasis caryae) - OKLAHOMA - Surveys indicate egg laying occurring as far north as Stillwater area, Payne County. Observations made throughout central, south central and north central areas showed following percent of cluster formations: Stillwater, 5.33; Okemah, Okfuskee County, 15.81; Sparks, Lincoln County, 8.91; Stratford, Garvin County, 6.27; Sulphur, Murray County, 14.28; Marietta, Love County, 15.7; and Ada, Pontotoc County, 10.14. Control measures initiated in most areas. (Okla. Coop. Sur.). TEXAS - Adults and egg laying heavier in Coleman, Fayette and Hamilton Counties than in 1961. (Lawrence, Sims, Bippert). GEORGIA - Moderate infestations noted on pecans in Berrien County; heavy on pecans in Ware County. (Boland Johnson).

PECAN LEAF CASEBEARER (Acrobasis juglandis) - NORTH CAROLINA - Infested pecan in Carteret County. (Jones, Mount).

PECAN PHYLLOXERA (Phylloxera devastatrix) - OKLAHOMA - Infestations common throughout northeast, north central, central and south central parts of State ranging from light to heavy. Reported heavier than last year. (Okla. Coop. Sur.).

AN APHID (Myzocallis coryli) - OREGON - Populations increasing in filbert orchards in Polk, Marion and Linn Counties; counts in excess of 25 per leaf not uncommon May 31. (Capizzi).

APHIDS - CALIFORNIA - Medium populations of Myzus persicae and Toxoptera aurantii on citrus trees in Orange Cove, Fresno County. (Cal. Coop. Rpt.).

WESTERN GRAPE LEAF SKELETONIZER (Harrisina brillians) - NEVADA - Three infested properties found in North Las Vegas, Clark County; these represent first infestations outside Twin Lakes area in Las Vegas. All properties under treatment. (Nichols, Zoller). ARIZONA - Heavy, larval populations damaged dooryard grapes in central area; commercial vineyards not infested. (Ariz. Coop. Sur.).

JAPANESE BEETLE (Popillia japonica) - NORTH CAROLINA - Adults noted on grapes in Nash County. (Robertson, Mount).

TRUCK CROP INSECTS

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - MARYLAND - Larvae abundant and destructive to untreated potato and tomato plantings in several counties. (U. Md., Ent. Dept.). NEW YORK - Emergence and egg laying heavy in Suffolk County; many crops attacked, especially eggplant and tomato. (N. Y. Wkly. Rpt., May 28). RHODE ISLAND - Feeding on late potatoes in Washington County caused

concern; less damage to plants with normal growth. (Mathewson, Kerr, Sheehan, Hannah). OKLAHOMA - Heavy populations continue damage to potatoes in Pushmataha County area. (Okla. Coop. Sur.). TEXAS - Damaged home garden potatoes in Guadalupe County; controls necessary. (Texas Coop. Rpt., Massey). IDAHO - Starting to appear spottedly in potatoes in Caldwell area, Canyon County. (Bechtolt). WASHINGTON - Attacked Solanum dulcamara in pea fields at Zillah, Yakima County. (Landis).

FLEA BEETLES - SOUTH CAROLINA - Unspecified species caused heavy damage to tomatoes near Walhalla, Oconee County. (Nettles et al.). MARYLAND - Damage from Epitrix spp. very noticeable on untreated tomatoes and potatoes in several counties. (U. Md., Ent. Dept.). NEW JERSEY - Unspecified species very active on potatoes, causing considerable damage. (Ins.-Dis.-Weed Newsltr., May 29). NEW YORK - Populations of unspecified species attacking many crops, especially eggplant and tomatoes. (N. Y. Wkly. Rpt., May 28). CONNECTICUT - Unspecified species feeding on newly set plants. (Minnum). VERMONT - Unspecified species active on newly set tomatoes and emerged potatoes. (MacCollom). OREGON - Altica tombacina caused ragging of strawberry leaves near Estacada, Clackamas County, April 26; det. by Dr. L. G. Gentner. (Mannerheim).

TOBACCO HORNWORM (Protoparce sexta) - DELAWARE - First adults of season collected May 26 in blacklight trap in Sussex County. (Burbutis).

CABBAGE LOOPER (Trichoplusia ni) - NEW MEXICO - Untreated lettuce field in Valencia County averaged 3-5 small larvae per leaf or 10-20 per plant; treated, commercial fields with only 2-4 small larvae in field. (N. M. Coop. Rpt.). OKLAHOMA - Continues damaging to cabbage in Bixby area, Tulsa County. (Okla. Coop. Sur.).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - MASSACHUSETTS - Serious infestations found on strawberries. (Crop Pest Cont. Mess., May 31). WASHINGTON - Attacked field crops at Zillah, Yakima County; infestations much earlier than usual. (Landis).

SPIDER MITES - ARIZONA - Medium infestations of Tetranychus cinnabarinus built up along edges of some cantaloup fields in Yuma County. (Ariz. Coop. Sur.). TEXAS - Several species caused widespread infestations on potatoes, tomatoes and cucurbits in south central counties. (Nolan, Texas Coop. Rpt.; Massey).

POTATO APHID (Macrosiphum euphorbiae) - MARYLAND - Light to heavy numbers observed on untreated plantings in Dorchester and St. Marys Counties. (U. Md., Ent. Dept.). DELAWARE - Remains rather light on potatoes and tomatoes in most areas of New Castle and Kent Counties. (Burbutis).

GREEN PEACH APHID (Myzus persicae) - WASHINGTON - Alatae and apterae on potatoes at Zillah, Yakima County, and on sugar beets and mustard at Walla Walla, Walla Walla County; infestations light, with about 25 percent of plants infested. (Landis, Woodworth).

POTATO PSYLLID (Paratrioza cockerelli) - UTAH - Adults averaged 3 per 20 sweeps at Snowville, Box Elder County, on Lycium sp. (Knowlton). NEBRASKA - Ranged 0-5 per 100 sweeps on Lycium halimifolium, 2 per 100 sweeps on early potatoes, and 12 per 100 sweeps on culls in Scotts Bluff County. (Hagen).

POTATO FLEA BEETLE (Epitrix cucumeris) - IOWA - Very active on potato and tomato plants. (Iowa Ins. Inf., May 25). RHODE ISLAND - Common on potatoes. (Mathewson, Kerr, Sheehan). DELAWARE - Common to abundant on potatoes in central and western New Castle County and causing moderate to heavy feeding injury. Present on tomatoes in New Castle County with injury confined largely to older foliage. (Burbutis).

POTATO LEAFHOPPER (Empoasca fabae) - WISCONSIN - Adults becoming more common; some potatoes required treatment in Sauk County. (Wis. Ins. Sur.).

STALK BORER (Papaipema nebris) - NORTH CAROLINA - Infested tomatoes in Davidson County. (Robertson, Mount).

BEAN LEAF BEETLE (Cerotoma trifurcata) - OKLAHOMA - Heavy populations present on home garden beans in Cushing area, Payne County. (Okla. Coop. Sur.).

MEXICAN BEAN BEETLE (Epilachna varivestis) - MARYLAND - Moderate numbers depositing eggs on commercial snap beans at Mardela, Wicomico County. (U. Md., Ent. Dept.).

PEA APHID (Macrosiphum pisi) - WISCONSIN - Increasing slowly in pea fields; averaged 3 per 10 sweeps in Sheboygan and Shawano Counties, 13 per 10 sweeps in Green Lake County, 4.6 per 10 sweeps in Rock County, 6 per 10 sweeps in Columbia County and 15 per 10 sweeps in Dane County. All counts above for early peas, which will apparently escape damage; however, populations threatening on midseason varieties. Field in Dane County revealed 23 per 10 sweeps compared with adjacent early season field with 6 per 10 sweeps. Similar ratio noted in Rock County. (Wis. Ins. Sur.).
DELAWARE - Counts on peas vary 3-60 per sweep in New Castle County. (Burbutis).

BEET LEAFHOPPER (Circulifer tenellus) - COLORADO - Population light on sugar beets in Delta, Mesa and Montrose Counties; 4-30 per 100 net sweeps. (Bulla). UTAH - Distant migratory populations light in south central and northern part of State. Counts averaged 0.04 per foot in Weber County and 0.16 per foot in Sevier County on beet rows. Nymphs, second and third instars, in breeding area locally in Box Elder County; averaged 2 per square foot. (Dorst).

SUGAR-BEET ROOT APHID (Pemphigus betae) - WASHINGTON - Flight in sugar beet fields underway at Walla Walla, Walla Walla County. (Woodworth).

STRIPED FLEA BEETLE (Phyllotreta striolata) - WYOMING - Adults, per 100 sweeps, averaged 8 in sugar beets and 11 in potatoes near Pine Bluffs, Laramie County. (Fullerton).

A LEAF MINER FLY (Liriomyza pusilla) - WASHINGTON - Eggs, probably of this species, extremely abundant at Zillah, Yakima County; 75 percent of sugar beet in some fields with eggs. (Landis).

STRIPED FLEA BEETLE (Phyllotreta striolata) - WYOMING - Adults, per 100 sweeps, averaged 8 in sugar beets and 11 in potatoes near Pine Bluffs, Laramie County. (Fullerton).

A LEAF MINER FLY - WASHINGTON - Eggs extremely abundant at Zillah, Yakima County; 75 percent of sugar beets in some fields with eggs. (Landis).

IMPORTED CABBAGEWORM (Pieris rapae) - MARYLAND - Eggs and small larvae abundant on unprotected cabbage plantings in Wicomico and Worcester Counties. (U. Md., Ent. Dept.).

SOUTHERN CABBAGEWORM (Pieris protodice) - KANSAS - Adults quite numerous around Manhattan, Riley County. (Smith).

CABBAGE MAGGOT (Hylemya brassicae) - NEW YORK - Injured crucifer roots in Niagara County. (N. Y. Wkly. Rpt., May 28). RHODE ISLAND - Feeding on early radishes probably caused by this species. (Salomon). MICHIGAN - Populations on poorly treated radishes high. (Hutson).

ONION MAGGOT (Hylemya antiqua) - COLORADO - Present in high numbers in Adams County on green and dry onions. (Lesser, Hantsbarger, Jenkins).

STRIPED CUCUMBER BEETLE (Acalymma vittata) - MARYLAND - Adults abundant and destructive to untreated plantings of cucumbers, cantaloups and squash in Dorchester, Wicomico and Worcester Counties. (U. Md., Ent. Dept.).

ALFALFA LOOPER (Autographa californica) - CALIFORNIA - Appeared heavy on lettuce in Salinas, Monterey County. (Cal. Coop. Rpt.).

LOOPERS - IDAHO - First and second instars of unidentified species in numbers great enough to require controls on lettuce plantings in Canyon County. (Waters, May 25).

A THRIPS (Frankliniella occidentalis) - NEW MEXICO - Caused extensive damage to outer leaves of lettuce in Valencia County; approximately 20-40 per plant. (N. M. Coop. Rpt.).

STRAWBERRY LEAF ROLLER (Ancyliis comptana fragariae) - KANSAS - Destroyed 5-acre strawberry field in Sedgwick County. Many adults, larvae, pupae and eggs present May 25. Almost complete control in treated fields; few rolled leaves noted in Doniphan County May 28. (Eshbaugh).

MEADOW SPITTLEBUG (Philaenus spumarius) - OREGON - Extremely abundant in Willamette Valley on strawberries, May 31. Four fields checked in Polk County averaged 3 spittle masses per linear foot of row. (Capizzi).

STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus) - MICHIGAN - First of season noted at Manitou Beach, Lenawee County. (Hutson).

STRAWBERRY WEEVIL (Anthonomus signatus) - IOWA - Damaged strawberry buds in Fayette and Winneshiek Counties. (Iowa Ins. Inf., May 25). NEW YORK - Additional injury noted in Suffolk County week of May 21. (N. Y. Wkly. Rpt.).

CYCLAMEN MITE (Steneotarsonemus pallidus) - NEW YORK - Severe infestation noted on strawberries in Chautauqua County May 19. (N. Y. Wkly. Rpt.).

HOP APHID (Phorodon humuli) - OREGON - Appeared in Willamette Valley hopyards; populations light near Gervais, Marion County, May 31. (Capizzi).

TOBACCO INSECTS

HORNWORMS (Protoparce spp.) - GEORGIA - Light infestations noted on tobacco in Berrien, Coffee, Bacon and Emanuel Counties. (Johnson). NORTH CAROLINA - Eggs present on tobacco in Columbus County; examination of 75 plants in 3 fields yielded 36 eggs and 2 second instars. (Guthrie, May 25).

TOBACCO BUDWORM (Heliothis virescens) - GEORGIA - Light infestations noted in Berrien, Coffee, Bacon and Emanuel Counties; large numbers of eggs on flowers of plants. (Johnson). NORTH CAROLINA - Infested tobacco in Columbus County. Examination of 75 plants in 3 fields yielded 32 larvae, mostly in third instar, but some up to fifth instar, May 25. (Guthrie).

TOBACCO WIREWORM (Conoderus vespertinus) - NORTH CAROLINA - Larvae, apparently this species, caused only slight damage to tobacco in Granville and Person Counties; several farms with damage, all with 10 percent or less. (Mount).

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - MARYLAND - Noticeable injury beginning on newly set tobacco in Anne Arundel County. (U. Md., Ent. Dept.).

COTTON INSECTS

THRIPS - ARIZONA - Medium to heavy populations remain present in some central area cotton. (Ariz. Coop. Sur.). NEW MEXICO - Causing severe damage to some cotton in northern Dona Ana County around Hatch; controls being applied. Populations light on cotton in Eddy County. Species probably Frankliniella occidentalis. (N. M. Coop. Rpt.). TEXAS - Infestations of several species variable, with most

farmers in eastern one-half of State applying controls. (Texas Coop. Rpt.). OKLAHOMA - Scattered populations of Frankliniella sp., ranging from none to heavy, found in cotton in Caddo County. One field with heavy populations treated. Infestations also reported from Bryan County, south central area, and Choctaw County, southeast area. (Okla. Coop. Sur.). LOUISIANA - Damage severe in small cotton on blackland in Tallulah area. However, populations not exceedingly high and older cotton should not suffer further economic damage. (Smith et al.). MISSISSIPPI - Populations increased in delta area, but most cotton past thrips injury stage. (Merkl et al.). TENNESSEE - Populations much lower than at same time in 1961 in western area; controls probably not needed. (Locke). SOUTH CAROLINA - Some damage reported in Florence area; many fields treated this year. (Taft et al.).

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Emergence from overwintering quarters light, but thundershowers expected to cause increasing populations in cotton in most areas. (Texas Coop. Rpt.). In McLennan and Falls Counties, counts averaged 40 per acre in untreated fields and 15 per acre in treated fields compared with 32 per acre in untreated and 28 in treated fields at same time in 1961. Many fields producing squares large enough for oviposition and most fields expected to be squaring during week ending June 8. (Cowan, Davis). LOUISIANA - Rate per acre 150 and 450 in 2 fields in Tallulah area. With present weather conditions, 90 percent emergence expected to occur June 1-15. (Smith et al.). MISSISSIPPI - Accelerated movement to cotton from hibernation quarters expected in delta area. (Merkl et al.). TENNESSEE - Some signs of terminal bud feeding found in southern counties in western area. (Locke). SOUTH CAROLINA - Emergence varies from very light to many in Florence area depending upon local moisture conditions. (Taft et al.). NORTH CAROLINA - Numbers appearing in cotton fields in some areas. (Cott. News Ltr.).

FLEA BEETLES - TENNESSEE - Caused some damage to cotton in western area; controls not justified. (Locke).

A MAY BEETLE (Phyllophaga cribrata) - TEXAS - Causing light damage to cotton in Midland County. (Texas Coop. Rpt.).

BOLLWORMS (Heliothis spp., et al.) - GEORGIA - Egg counts per 100 terminals ranged 0-21 and averaged 9 in 25 southern counties; larvae per 100 terminals ranged 0-8 and averaged 3 in same counties. Larval size ranged from very small to full grown. Approximately 50 percent of cotton has small pinpoint squares or larger. (Johnson). LOUISIANA - Not observed in Tallulah area. (Smith et al.). MISSISSIPPI - Some egg deposition occurred on cotton in delta area; no damaging infestations noted. (Merkl et al.).

PINK BOLLWORM (Pectinophora gossypiella) - ARIZONA - Good moth emergence continues in cage tests at Safford, Graham County. No recent collections made in central area light traps. (Ariz. Coop. Sur.).

SALT-MARSH CATERPILLAR (Estigmene acrea) - TEXAS - Building up on rangeland in several west central counties and causing some damage to edges of cotton fields. (Texas Coop. Rpt.).

CABBAGE LOOPER (Trichoplusia ni) - ARIZONA - Larvae medium to heavy in some central area cotton; controls necessary in few cases. (Ariz. Coop. Sur.). OKLAHOMA - Reported on cotton in Bryan County. (Okla. Coop. Sur.).

COTTON FLEAHOPPER (Psallus seriatus) - TEXAS - Adults beginning to move into cotton in many areas as wild host plants mature and dry up. Populations in cotton in most areas expected to increase rapidly. (Texas Coop. Rpt.). Infestation averaged 2.9 per 100 terminals in treated fields and 4.8 per 100 terminals in untreated fields in McLennan and Falls Counties. (Cowan, Davis).

FLEAHOPPERS (Spanogonicus albofasciatus and Psallus seriatus) - ARIZONA - Infestations continue to increase in some central and southeast area cotton; 15-30 percent damaged squares common. (Ariz. Coop. Sur.).

COTTON APHID (Aphis gossypii) - TEXAS - Variable infestations present in cotton-growing areas. Cotton within several local areas damaged, but parasite and predator populations building up and helping to ease the problem. (Texas Coop. Rpt.). OKLAHOMA - Reported on cotton in Bryan County. (Okla. Coop. Sur.).

LYGUS BUGS (Lygus spp.) - ARIZONA - Adults variable, but generally light in cotton statewide. (Ariz. Coop. Sur.).

SPIDER MITES - CALIFORNIA - Medium infestations of Tetranychus atlanticus showing on cotton in Dos Palos, Fresno County. (Cal. Coop. Rpt.). TEXAS - Few locally heavy outbreaks noted, but generally not a problem. (Texas Coop. Rpt.). LOUISIANA - Spotted infestations adjacent to ditches and turnrows observed in Tallulah area. (Smith et al.). TENNESSEE - Present in environs of regularly infested fields in western area; conditions favorable for increase. (Locke).

Weather of the Week Ending June 4 (Cont'd from page 480)

Early in the period, a late spring storm in the Midcontinent spread severe thunderstorm activity over the Plains and upper Mississippi Valley. Almost daily rainfall in Kansas left from 4.00 to 6.00 inches in a triangle formed by Jewell, Harvey and Marshall Counties. Numerous tornadoes, damaging hail, and flooding of major streams were also reported from Kansas and Nebraska. In Missouri, golf ball-size hail fell at Eldon on the 30th and a tornado damaged property near Blodgett.

The first major rains in 2 months came to Oklahoma and spread ample amounts across the State; the central two-thirds received from 4.00 to 7.75 inches. A 4-week dry spell ended in Texas and Louisiana when drought-breaking rains began on the 28th. Totals from 3.00 to 4.00 inches were common in central Texas, and Kentwood, Louisiana, had 7.27 inches. Hail up to baseball size fell in and around Abilene, Texas, on June 1. Showers on the 30th at Miami, Florida, gave that station its first measurable rainfall in 23 days, the second longest such period in 22 years. Hail and winds up to 90 m.p.h. hit Herlong Field near Jacksonville in that State. The fire hazard is still high in the southern and western portions of the Peninsula, as showers were too spotty.

A squall line over New England at the end of May was responsible for creating severe thunderstorm activity there. One man was fatally burned in one of many lightning-started fires. Earlier, the same squall left 3.30 inches of rain at Reading, Pennsylvania, in a 2-hour period. (Summary supplied by U. S. Weather Bureau).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

JACK-PINE BUDWORM (Choristoneura pinus) - WISCONSIN - Mostly second instars feeding on new shoots and flowers of jack pine in Douglas and Washburn Counties. Too early to determine extent of infestation. (Wis. Ins. Sur.).

SPRUCE BUDWORM (Choristoneura fumiferana) - NEW MEXICO - Damage severe in mixed conifer forests in northern area. Severity of defoliation required setting up of a control area about 430,000 acres in size. Treatment to begin week of June 3 in Las Vegas area where development is most advanced. (N. M. Coop. Rpt.).

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana) - NEW YORK - Larvae on Japanese black pine (Pinus thunbergi) on Long Island fully grown; no pupae yet found. OREGON - Surveys completed in metropolitan Portland, May 18; also in Oswego, Tigard and West Linn. A total of 101,362 pines examined on 174,800 properties. (Capizzi).

A TIP MOTH (Rhyacionia sp. prob. pasadenana) - CALIFORNIA - Occurred on Pinus sp. in Stockton, San Joaquin County. Larvae currently working in twigs. (Cal. Coop. Rpt.).

LARGE ASPEN TORTRIX (Choristoneura conflictana) - WISCONSIN - Defoliation of small trees in areas of Rusk and Price Counties. (Wis. Ins. Sur.).

LINDEN LOOPER (Erannis tiliaria) - MARYLAND - Outbreak numbers caused noticeable feeding injury to oaks and other deciduous trees from Washington County eastward to Baltimore County. (U. Md., Ent.Dept.).

AN OLETHREUTID (Epinotia nanana) - PENNSYLVANIA - Heavy infestation on spruce in Crawford County. Adults emerging. (Adams).

PINE SAWFLIES - WISCONSIN - Newly hatched larvae of Neodiprion nanulus nanulus feeding on jack pine in Washburn County, May 18. (Wis. Ins. Sur.). NEW JERSEY - Undetermined species numerous in several areas. (Ins.-Dis.-Weed Newsltr., May 29).

PINE TORTOISE SCALE (Toumeyella numismaticum) - WISCONSIN - Heavily infested jack pine trees reported from parts of Marinette County. (Wis. Ins. Sur.).

PINE SPITTLEBUG (Aphrophora parallela) - PENNSYLVANIA - Fairly abundant, but heaviest near woods of Scotch pine in Franklin County (Pepper) and very heavy, at least one spittle mass per branch on white and scrub pines in Huntingdon Co. (Udine). MARYLAND - Spittle masses moderate to very heavy on young loblolly pines along Route 50 in Queen Annes, Talbot, Dorchester and Wicomico Counties. (U. Md., Ent. Dept.).

PINE NEEDLE SCALE (Phenacaspis pinifoliae) - NEW YORK - Crawlers appear settled in most instances. New needles not yet fully expanded. Early egg hatch may limit development this season and result in population declines. However, second generation appeared upstate in 1961 and populations easily built up again. (N. Y. Wkly. Rpt., May 28). RHODE ISLAND - Crawlers have moved out on needles abundantly in Kingston, Washington County. (Mathewson). MASSACHUSETTS - Nearly all hatched at Amherst, Hampshire County, May 28. (Wheeler). IOWA - Eggs are hatching. (Iowa Ins. Inf., May 25). VERMONT - Expect hatch about middle of June. (MacCollom).

A PLANT BUG (Neoborus illitus) - CALIFORNIA - Heavy nymphal population occurring on Modesto ash trees in Napa, Napa County. (Cal. Coop. Rpt.).

COOLEY SPRUCE GALL APHID (Chermes cooleyi) - COLORADO - Numerous on spruce in Boulder County. (Hantsbarger). RHODE ISLAND - New galls on spruce and egg masses on needles of Douglas-fir in Kingston, Washington County. (Mathewson).

APHIDS - OREGON - Schizolachnus pineti very common on Pinus contorta in Portland area. Det. by F. C. Hottes. Phyllaphis fagi abundant on beech trees in Portland nurseries and boulevard plantings during May. (Larson). COLORADO - Aphids numerous on juniper in Denver and damage noticeable. (Chambers).

SPRING CANKERWORM (Paleacrita vernata) - IOWA - Has now pupated. Trees with treated trunks were as badly damaged as trees with untreated trunks. Throughout southern half of State, few if any elms escaped some leaf feeding. Damage was severe in Wapello, Clarinda and Shenandoah, with over half of elm trees being more than 50 percent defoliated. Damage was moderate in Oskaloosa, Castana and Glenwood, with 25-50 percent of elms being 50 percent defoliated. (Iowa Ins. Inf., May 25).

CANKERWORMS - NEW YORK - Larvae of unspecified species 1-1.25 inches long; terminal leaves about one-third defoliated in untreated, heavily infested areas. (N.Y. Wkly. Rpt., May 28). PENNSYLVANIA - Alsophila pometaria and Paleacrita vernata moderately heavy in woods in Lancaster and Dauphin Counties, May 24. (Balsbaugh, Slesman). WISCONSIN - Nearly mature larvae of A. pometaria on oaks in Columbia and Marquette Counties where several acres have been almost defoliated. Indications that elms also defoliated in Walworth and parts of Dane County. (Wis. Ins. Sur.). NORTH DAKOTA - Undetermined species damaging elm and ash in Sargent County (Wilson, Schenck) and elm, ash and horsechestnut in Cass County. (Dogger).

GYPSY MOTH (Porthetria dispar) - VERMONT - Larvae spotty, but defoliating ornamentals in some areas. (MacCollom).

EASTERN TENT CATERPILLAR (Malacosoma americanum) - NORTH CAROLINA - General emergence occurred week of May 21-25. (Greene). RHODE ISLAND - Wandering larvae causing concern in heavily infested areas of Providence County. (Mathewson, Cartier, King). MICHIGAN - Nests very conspicuous in Cadillac, Wexford County; Cheboygan, Cheboygan County; Traverse City, Grand Traverse County; and Manistee, Manistee County. (Hutson). WISCONSIN - Larvae now nearly mature in more advanced areas of State. (Wis. Ins. Sur.).

FALL WEBWORM (Hyphantria cunea) - TEXAS - Moderate, widespread infestations on pecan and ash trees in Nueces County. (Ridgway).

FRUIT-TREE LEAF ROLLER (Archips argyrospilus) - NEW YORK - Numerous on maple and other trees in Nassau County. (N. Y. Wkly. Rpt., May 28).

MOURNING-CLOAK BUTTERFLY (Nymphalis antiopa) - DELAWARE - Heavy larval infestation on Chinese elm in northern New Castle County. (Huber).

A SESIID (Paranthrene robiniae) - CALIFORNIA - Heavy larval damage to poplars in Escondido, San Diego County. (Cal. Coop. Rpt.).

ELM LEAF BEETLE (Galerucella xanthomelaena) - NEW YORK - Heavy and widespread this season. (N. Y. Wkly. Rpt., May 28). RHODE ISLAND - Activity on trees still sparse. (Mathewson). VIRGINIA - Larvae heavily infesting elms at a home in Hopewell, Prince George County. (Tarpley, Harris, May 22). KANSAS - Counts of first generation, nearly full grown larvae, were 4-5 per elm leaf in Sumner County, May 25. (Thompson). TEXAS - Populations on elms in Eastland and Callahan Counties rather widespread and causing concern among homeowners. (Ridgway). COLORADO - Eggs and larvae numerous on elms and ornamentals in Delta County. (Bulla).

IMPORTED WILLOW LEAF BEETLE (Plagioderma versicolora) - MARYLAND - Adults and larvae causing foliage injury to weeping willows in Prince Georges County, May 26. (U. Md., Ent. Dept.).

LOCUST LEAF MINER (Xenochalepus dorsalis) - PENNSYLVANIA - Heavy on locust in southern Butler County and northern Allegheny County, May 22. (Simons).

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - SOUTH DAKOTA - Adult and larvae found in sample of dead wood on a hackberry tree in Sioux Falls, Minnehaha County, May 24. (Mast).

JUNE BEETLES - WISCONSIN - A variety of shrubs showing feeding of the beetles. Large flights reported from Barron, Langlade and Winnebago Counties. Counts in blacklight traps at Middleton and Madison on May 23 were 170 and 254, respectively. (Wis. Ins. Sur.).

SAWFLIES - CALIFORNIA - Heavy populations of unidentified species on white poplar leaves in Woodbridge area, San Joaquin County. (Cal. Coop. Rpt.).

SYCAMORE LACE BUG (Corythucha ciliata) - OKLAHOMA - Causing concern in Stillwater and Ponca City areas. (Okla. Coop. Sur.).

WOOLLY ELM APHID (Eriosoma americanum) - IOWA - Severe on elms at Fairfield, Jefferson County. (Iowa Ins. Inf., Wormley; May 25).

WOOLLY ALDER APHID (Prociphilus tessellatus) - NORTH CAROLINA - Infesting maple in Mecklenburg and Edgecombe Counties. Det. by Jones and Robertson. Also heavily infesting elm and maple in Wake County. (Wray).

TULIPTREE APHID (Macrosiphum liriodendri) - DELAWARE - Abundant on tuliptrees in one area of New Castle County. (MacCreary).

GALL INSECTS - NEW YORK - Numerous on maples and oaks in Niagara County; inquiries fewer than in 1961 in Chemung County; appear to be increasing on leaves and branches of maple and oak in Nassau County. (N. Y. Wkly. Rpt., May 28).

ROSE CHAFER (Macrodactylus subspinosus) - DELAWARE - Common on roses in one area of northern New Castle County. (Huber). MARYLAND - Adults abundant on pyracantha at Brandywine, Prince Georges County, May 25. (U. Md., Ent.Dept.).

A SCARAB (Hoplia oregona) - CALIFORNIA - Cool weather prolonging infestations, primarily on roses. Local heavy populations reoccurred in Carmichael area, Sacramento County. (Cal. Coop. Rpt.).

A WEEVIL (Apion hibisci) - MARYLAND - Collected on Hibiscus oculiroseus at Lexington Park, St. Marys County, by T. L. Bissell on September 4, 1960. This is a new State record. Det. by R. E. Warner. (U. Md., Ent. Dept.).

BAGWORM (Thyridopteryx ephemeraeformis) - TEXAS - Moderate, local infestations on evergreens in Brazoria County. Larvae about one-half inch long. (Tex. Coop. Rpt. Ellard). INDIANA - Hatched at Lafayette, Tippecanoe County, May 31, (Schuder). KANSAS - Young larvae causing serious defoliation to redcedars in shelter belts in Sedgwick County; also feeding on sycamores in Riley County. (Thompson).

A TORTRICID (Tortrix pallorana) - INDIANA - Infesting Scotch pine in Pulaski County. Adult emergence started. (Schuder).

TOBACCO BUDWORM (Heliothis virescens) - CALIFORNIA - This species and Sabulodes caberata larvae medium on leaves and flowers of geranium in La Mesa, San Diego County. (Cal. Coop. Rpt.).

ARBORVITAE LEAF MINER (Argyresthia thuella) - NEW YORK - In pupal stage; heavy this season throughout State. Parasitism high, locally, in some sections. (N. Y. Wkly. Rpt., May 28).

ROSE LEAFHOPPER (Edwardsiana rosae) - WISCONSIN - Injury to roses quite noticeable in areas of Dane County. Indications point to a heavy incidence this season. (Wis. Ins. Sur.).

LACE BUGS - NEW YORK - Unspecified species troublesome on ornamentals in Suffolk County. (N. Y. Wkly. Rpt., May 28). DELAWARE - Stephanitis pyrioides common on some azaleas in New Castle County. (Bray).

OYSTERSHELL SCALE (Lepidosaphes ulmi) - VERMONT - Expected to hatch about middle of June. (MacCollom). PENNSYLVANIA - Heavy infestation on poplar in Butler County, May 22. (Simons). NEBRASKA - Crawler stage very active in Lincoln, Lancaster County. (Bergman).

COCCIDS - NEW YORK - Fiorinia externa again heavy and causing considerable damage to hollyhock on Long Island; crawlers first noted May 23. (N. Y. Wkly. Rpt., May 28). MARYLAND - Chrysomphalus tenebriosus heavily infesting several silver maples in District Heights. Crawlers active. (U. Md., Ent. Dept.). MISSOURI - Infestation of Aspidiotus liquidambaris on leaves of sweetgum reported in nurseries in east central area. (Lenhardt). NEW MEXICO - Unaspis euonymi heavy in spots on euonymus in Bernalillo County. (N. M. Coop. Rpt.). CALIFORNIA - Medium infestation of Chnaurococcus trifolii on roots of Senecio sp. in Alturas, Modoc County. (Cal. Coop. Rpt.).

A COCCID (Lepidosaphes yanagicola) - MARYLAND - Collected on Pachysandra sp. in cold frames at Towson, Baltimore County, by C. W. McComb on April 17, 1962. This is a new State record. Det. by H. Morrison. (U. Md., Ent. Dept.).

AN APHID (Capitophorus braggi) - DISTRICT OF COLUMBIA - On May 19 a check was made on the planting of Elaeagnus pungens on which the species was reported earlier (CEIR 12(19):468). As the infestation had entirely disappeared, it is assumed that the aphids had left for their summer food plants. (Leonard).

BOXELDER APHID (Periphyllus negundinis) - NEVADA - Moderate to heavy infestations on boxelder in Fallon, Churchill County, and southern Washoe County. (Bechtel, Ferraro).

BOXWOOD PSYLLID (Psylla buxi) - RHODE ISLAND - Conspicuously heavy on ornamental boxwood, Washington County. (Mathewson).

BOXWOOD LEAF MINER (Monarthropalpus buxi) - MASSACHUSETTS - Adults active May 28 in eastern area of State. (Wheeler). NORTH CAROLINA - Completed 95 percent of its emergence in the State by May 15. (Greene).

NATIVE HOLLY LEAF MINER (Phytomyza ilicicola) - NEW YORK - Adults active May 23 on American holly; this is about one week earlier than usual. (N. Y. Wkly. Rpt.).

ROSE-SLUG (Endelomyia aethiops) - MISSOURI - Feeding on multiflora roses throughout State. (Munson, Thomas, Wood). DELAWARE - On roses in New Castle County. (Burbutis).

AN ERIOPHYID MITE (Nalepella tsugifoliae) - MARYLAND - Caused noticeable damage to Carolina hemlock, at Chevy Chase, Montgomery County, May 10. Det. by H. H. Keifer. (U. Md., Ent. Dept.).

SPIDER MITES - MARYLAND - Undetermined species heavily infesting ivy at Silver Spring, Montgomery County. (U. Md., Ent. Dept.). MISSOURI - Tetranychus spp. infesting Christmas tree planting in east central area. Infestation distributed throughout planting, but extremely heavy near borders. (Lenhardt). NEW MEXICO - Species damaging arborvitae in Socorro County probably Oligonychus ununguis. (N. M. Coop. Rpt.).

INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - NEW MEXICO - Thick along Rio Grande River in Socorro, Sierra and Dona Ana Counties; troublesome in towns located along river. (N. M. Coop. Rpt.). UTAH - Annoying in several parts of Cache County. (Knowlton). IOWA - Larvae ranged 0-15 per dip in standing water in roadside ditches and pools throughout eastern half of State; same situation probably exists in western half of State. Adults reported abundant and annoying May 24 in parks and golf courses in Ames, Story County. (Iowa Ins. Inf., May 25). MINNESOTA - Aedes vexans larvae predominant species collected; proportion of Culex spp. and Culiseta spp. increased markedly. (Minn. Ins. Rpt.). WISCONSIN - Populations increased substantially; emergence earlier than in recent years and accentuates problem. Aedes vexans larvae low in pools in Madison area, but Mansonia perturbans adults relatively heavy. Mosquitoes annoying grazing cattle at night in Marathon, Winnebago, Wood and Trempealeau Counties. (Wis. Ins. Sur.). RHODE ISLAND - Causing complaints generally at twilight. (Mathewson, Cartier).

FACE FLY (Musca autumnalis) - SOUTH DAKOTA - Found in most herds of cattle in southeastern area. (Mast). IOWA - Populations increased; counts 0-20 (average 7) per animal on cattle in eastern area. (Iowa Ins. Inf., May 25). ILLINOIS - Very low; head averages varied 0.1-7.5 per face, with some indications that population is increasing. (Ill. Ins. Rpt.). MISSOURI - Light throughout north central area; counts ranged 0-5 per animal and averaged less than 2. (Munson, Thomas, Wood). PENNSYLVANIA - Beginning to emerge in Dauphin County (Sleesman) and has been fairly heavy in northwest area (Adams). DELAWARE - Collections averaged 10-12 per face in herd of Herford beef cattle in New Castle County. (Bray). VIRGINIA - Local, medium infestations on beef cattle in Patrick County. (Olinger, May 23). VERMONT - Remains extremely low. (MacCollom).

HOUSE FLY (Musca domestica) - OKLAHOMA - Populations, up to 100 per scudder grid, common in Stillwater area. (Okla. Coop. Sur.). CONNECTICUT - Becoming more numerous. (Savos). VERMONT - Annoying. (MacCollom).

HORN FLY (Haematobia irritans) - OKLAHOMA - Decreased on all herds observed throughout north central, central and south central areas. (Okla. Coop. Sur.). KANSAS - Counts on cattle in eastern area ranged 50-200 per animal. (Peters). MISSOURI - Counts on cattle in north central area ranged from 20 to over 100 per animal. (Munson, Thomas, Wood). IOWA - Populations ranged 0-10 per animal in eastern area; populations expected to double by June 2-3. (Iowa Ins. Inf., May 25). ILLINOIS - Increasing; counts per head averaged 59-136 in west, 25-180 in central, 2-125 in east and 10-40 in east-southeast district. (Ill. Ins. Rpt.). PENNSYLVANIA - Cattle appear to have unusual numbers in Huntingdon County. (Udine). VERMONT - Abundant on pastured cattle. (MacCollom).

STABLE FLY (Stomoxys calcitrans) - ILLINOIS - Varied 0-2 per animal in west, central, east-southeast districts. (Ill. Ins. Rpt.). IOWA - Emerged in southern and central areas May 24. (Iowa Ins. Inf.). OKLAHOMA - Counts remain generally static at Stillwater, north central area, but ranged up to 15 per head on cows in McCurtain County area, southeast section. (Okla. Coop. Sur.).

TABANIDS - OKLAHOMA - Chrysops spp. beginning to cause some concern to stockmen in southeast areas and Tabanus spp. counts of 3-5 per head noted on cattle in McCurtain area (southeast). (Okla. Coop. Sur.). MISSOURI - Emergence of Tabanus equalis heavy in central area; 7-10 days earlier than usual peak emergence. Heavy emergence of Tabanus sp., probably lineola, observed in north central area. Chrysops spp. populations high and continue to cause trouble in central and north central areas. Heavy egg deposition occurring. (Wingo). ILLINOIS - None observed in west, central and east districts, but occasionally observed in east-southeast district. (Ill. Ins. Rpt.). VERMONT - Horse flies and deer flies abundant on pastured cattle. (MacCollom). MARYLAND - Chrysops spp. very annoying to man and animals in tidewater areas and near Laurel, Prince Georges County. (U. Md., Ent. Dept.). SOUTH CAROLINA - Annoying to residents in Marion County. (Nettles et al., May 30).

CATTLE GRUBS (Hypoderma spp.) - UTAH - Adults running cattle in pasture areas near Logan, Cache County. (Knowlton).

SHEEP KED (Melophagus ovinus) - DELAWARE - Common on sheep in one area of New Castle County. (MacCreary).

A BITING MIDGE (Leptoconops kerteszi) - UTAH - Outbreak around parts of Great Salt Lake was very troublesome for about 3 weeks this spring. (Knowlton).

A BLACK FLY (Simulium jenningsi) - MARYLAND - Second brood emerging May 31 from Potomac River. (U. Md., Ent. Dept.).

BED BUG (Cimex lectularius) - MICHIGAN - Specimens being received at Entomology Department, Michigan State University, in greater numbers than for many years. Trailers seem to be most common habitat. (Hutson).

AMERICAN DOG TICK (Dermacentor variabilis) - OKLAHOMA - Populations down and causing less concern to picknickers in Stillwater area. (Okla. Coop. Sur.).

LONE STAR TICK (Amblyomma americanum) - OKLAHOMA - Remains high on cattle throughout eastern third of State; counts 350-450 per head in McCurtain County, southeast area. (Okla. Coop. Sur.).

ROCKY MOUNTAIN WOOD TICK (Dermacentor andersoni) - UTAH - Found on several people in Cache County areas. (Knowlton).

HOUSEHOLD AND STRUCTURAL INSECTS

DERMESTIDS - IOWA - Adults and larvae of Dermestes lardarius expected to be serious household problem. (Iowa Ins. Ins., May 25). NORTH DAKOTA - Attagenus piceus and Anthrenus sp. reported numerous times from Cass County. (Dogger).

TERMITES - RHODE ISLAND - Complaints numerous, especially in suburban residential areas of Providence and Kent Counties. (Mathewson, Cartier). OKLAHOMA - Reticulitermes sp. swarmed in Kiowa County area; noted in homes in Delaware, Adair and Choctaw Counties. (Okla. Coop. Sur.). UTAH - Unspecified species damaged home at Garland, Box Elder County. (Knowlton). NEVADA - Heavy infestation of R. hesperus in home in Reno, Washoe County; winged reproductives present. (Payne).

CARPENTER BEE (Xylocopa virginica) - MISSOURI - Numerous reports throughout State indicate damage to soft woods in various outbuildings. (Munson, Thomas, Wood). RHODE ISLAND - Caused damage in home in Kingston, Washington County. (Mathewson).

CLOVER MITE (Bryobia praetiosa) - IDAHO - Activity increasing around homes at Moscow, Latah County. (Gittins, May 25).

BROWN DOG TICK (Rhipicephalus sanguineus) - MARYLAND - Infested several homes in Montgomery County. (U. Md., Ent. Dept.).

STORED-PRODUCT INSECTS

FLIES - PENNSYLVANIA - Huge numbers of Leia sp., Bradysia sp. and Drosophila busckii breeding in decaying potatoes in storage in Berlin, Somerset County, during March 1962. Potatoes held at 70° F. for conditioning of potato chips. Concerned about accidental contamination of chips. Det. of Leia sp. and Bradysia by Alan Stone and D. busckii by W. W. Wirth. (Udine).

A MEAL MOTH - COLORADO - Undetermined species abundant in poultry rations in Larimer County. (Moreng, Whittet).

BENEFICIAL INSECTS

LADY BEETLES - IOWA - Various species and other predators ranged 2-6 per 10 sweeps. (Iowa Ins. Inf., May 25). SOUTH DAKOTA - One adult per 100 sweeps in Clay and Lincoln Counties; one larva found in Union County, May 29. (Hintz). OKLAHOMA - Several species ranged light to heavy throughout the State. (Okla. Coop. Sur.). WYOMING - Adults of Hippodamia sp. and Coccinella sp. per 100 sweeps averaged 17 in alfalfa and 13 in wheat in Laramie County. (Fullerton). UTAH - Unspecified species moderate; helped reduce pea aphid populations. Adalia bipunctata numerous as predator of spirea aphid at Logan. (Knowlton). ARKANSAS - Hippodamia convergens increasing in numbers in northwestern area. (Ark. Ins. Sur.).

DAMSEL BUGS (Nabis spp.) - OKLAHOMA - Light on alfalfa in north central and west central areas. (Okla. Coop. Sur.). WYOMING - Adults averaged 14 per 100 sweeps in alfalfa and 7 per 100 sweeps in wheat in Laramie County. (Fullerton). SOUTH DAKOTA - Present, averaged 2-3 per 10 sweeps in Clay County on alfalfa. (Spawn).

A FLOWER BUG (Orius insidiosus) - ARKANSAS - Populations increased in northwestern area; averaged over 100 per 100 sweeps in alfalfa in Washington County. (Ark. Ins. Sur.).

GREEN LACEWINGS (Chrysopa spp.) - OKLAHOMA - Light, scattered populations in alfalfa in north central and southwestern areas. (Okla. Coop. Sur.). UTAH - Moderate populations helped reduce pea aphid populations. (Knowlton).

LACEWINGS (undetermined) - IDAHO - Averaged 1-2 adults per 100 sweeps in alfalfa near Lewiston, Nez Perce County. (Halfhill). SOUTH DAKOTA - Averaged 1 per 10 sweeps in Lake County in sweetclover. (Hintz).

FLOWER FLIES - UTAH - Moderate larval populations helped reduce pea aphid populations. (Knowlton).

MISCELLANEOUS INSECTS

PERIODICAL CICADA (Magicicada septendecim) - NEW YORK - Emergence noted in southern Ulster County May 26. First emergence noted May 21 in Rockland County and since then emergence quite heavy along Hudson River. (N.Y. Wkly. Rpt.). CONNECTICUT - Began emerging in very small numbers in Rocky Hill May 22, North Branford May 25; heavy emergence in North Branford, Middlefield, Cheshire and Meriden May 30 and May 31. (Johnson, Schread, Leonard). NEW JERSEY - Several areas heavily infested. (Ins.-Dis.-Weed Newsltr., May 29). PENNSYLVANIA - Emergence noted in Northampton County May 31; began emerging in Dauphin County May 30. (Adams, Slesman). VIRGINIA - Additional county detections of Brood II include: Fluvanna, Goochland, Henrico, James City, Louisa, Lunenburg, Madison, Spotsylvania, Stafford, Greene, Amelia, Chesterfield, Nelson and Cumberland. Cf. CEIR 12 (22): 565 for previously reported counties. (Rowell, Tarpley). MARYLAND - Adults present near St. Leonard, Calvert County, May 29 and at several places in south central St. Marys County May 31. (U. Md., Ent. Dept.).

A CARRION BEETLE (Silpha ramosa) - CALIFORNIA - Adults medium on soil on grasslands in Oroville, Butte County. (Cal. Coop. Rpt.).

JAPANESE BEETLE (Popillia japonica) - VIRGINIA - First adults of season noted at Deep Creek area, Norfolk County. (Williams, May 25).

A POWDER-POST BEETLE (Lyctus africanus) - CALIFORNIA - Heavy adult populations emerged from bamboo curtains in home in Piedmont, Alameda County. (Cal. Coop. Rpt.).

A LEAF BEETLE (Gastrophysa cyanea) - IDAHO - Larvae and adults continue abundant on dock at Parma, Canyon County. (Waters, Gittins).

EUROPEAN EARWIG (Forficula auricularia) - CALIFORNIA - Extremely heavy populations occurring massed under palm frond stumps on parkways locally in Sacramento, Sacramento County. (Cal. Coop. Rpt.). IDAHO - Overwintered adults abundant and active in Moscow area, Latah County. (Manis).

AN ANT (Pheidole californica pyramidentis) - CALIFORNIA - Light populations found in soil in Alturas, Modoc County; this is a new state record. (Cal. Coop. Rpt.).

A SPHECID (Tachytes sp.) - NORTH CAROLINA - Caused some concern to Wake County residents by flying low over lawns in numbers. (Wray).

CORRECTIONS

CEIR 12(20):499 - MOSQUITOES - MARYLAND - third line from top...Aedes canadensis, a rare species, taken in flight - should read "Aedes cinereus, a rare species, taken in flight..."

CEIR 12(21):518 - PECAN LEAF CASEBEARER (Acrobasis juglandis) - NEW MEXICO - This is not species involved. Note should read "A PECAN CASEBEARER - NEW MEXICO - Found in 2 nurseries..."

CEIR 12(21):526 - RED-HEADED PINE SAWFLY (Neodiprion lecontei) - NORTH CAROLINA - This is not species causing damage to loblolly pines in Craven County. Species involved is probably Neodiprion taedae taedae. (Greene).

LIGHT TRAP COLLECTIONS

	Pseud. unip.	Perid. saucia	Agrot. ips.	Ostrinia nubilalis	Prod. ornith.	Protoparce sexta	Heliothis zeae	Heliothis vires.
ARKANSAS								
Hope 5/24-30	1	8	12					1
Morrilton 5/24-30	11	6	10					6
Kelso 5/24-30	14	25	16					8
COLORADO								
Two Buttes 5/25-6/1	422		116				9	
ILLINOIS (County)								
Champaign 5/25-31	1,352	35	31	73	2			
INDIANA (Counties)								
Jasper 5/22-27	19	2	6	22				
La Porte	29	1						
Lawrence 5/21-23	4		2	5			1	
Tippecanoe	60	3	5	1				
Vanderburgh	87	3	24	6	5	1		1
IOWA								
Ames 5/9-24	330	94	109	16	34			
Columbus Jct. 5/7-15	80	11	137					
Dubuque 5/12-20	133	25	39		4			
Hastings 5/10-16	201	12	26		4			
Milford 5/13-17	5	3						
KANSAS								
Garden City 5/24-25	21				2			7
Hays 5/24,26	82	3			2			4
Manhattan 5/27-31	144	8	11	8	66			2
Mound Valley 5/24-25	19	1	3		1			

(Continued on page

LIGHT TRAP COLLECTIONS (Continued)

	Pseud. unip.	Perid. saucia	Agrot. ips.	Ostrinia nubilalis	Prod. ornith.	Protoparce sexta	Heliothis quing.	zeae vires.
MINNESOTA								
Fergus Falls 5/20-27	6		5					
Shakopee 5/29	5							
Rochester 5/23-28	36		9					
MISSISSIPPI								
*Stoneville	5,182	2,199	280		157	41	93	1
NEBRASKA								
Scotts Bluff Exp. Sta. 5/15-28	1	6						
NORTH DAKOTA								
Fargo 5/28-6/1	7							
Linton 5/28-6/1	77		3					
Emrick 5/28-6/1	3							
SOUTH CAROLINA								
Clemson 5/26-6/1	29	8	11		54	16	3	4
TENNESSEE (Counties)								
Maury 5/22-28	20	4	8		12	12	12	12
Robertson 5/22-28	2	4				6	2	2
Cumberland 5/22-28	4	2	12					8
Greene 5/22-28	6	2	4				2	
Blount 5/22-28	44	12	24				4	1
Johnson 5/22-28	12	4	8					2
TEXAS								
Waco 5/26-6/1	5	15	16		59			48
WISCONSIN								
Mazomanie 5/21-27	18		8	8				
Middleton 5/23-29	80	8	3					
Madison 5/23-29	370	3	21	1				

Additional Light Trap Collection

NEBRASKA (Scotts Bluff Exp. Sta., 5/15-28) - Chorizagrotis auxiliaris - 2,402.

* Two traps - Stoneville.

INTERCEPTIONS OF SPECIAL INTEREST AT U. S. PORTS OF ENTRY

Some important interceptions that were reported March 31, 1962, by the Plant Quarantine Division, ARS, USDA, follow. These reports are based on identifications received from Federal taxonomists at the U. S. National Museum during the month, but do include any of special interest from recent months that were not previously reported.

KHAPRA BEETLE (Trogoderma granarium Everts) 12 times; at Wilmington, North Carolina, one time in stores; at Norfolk, Virginia, one time in cargo of crushed "myrobalan nuts" for a Kentucky destination; at Savannah, Georgia, one time in stores; at Charleston, South Carolina, one time in ship's hold; and at New York, New York, 7 times in cargoes of gum arabic and gum ghattay destined for New York markets.

MEXICAN FRUIT FLY (Anastrepha ludens (Lw.)) 17 times in baggage; at Miami, Florida, one time; at Brownsville, Texas, 7 times in fruit destined, collectively, for Tennessee, Texas, Illinois, Kansas and California; at Roma, Texas, one time in fruit; at Laredo, Texas, 5 times for Texas and Kansas destinations; at Nogales, Arizona, 2 times in fruit for California destinations; and at Eagle Pass, Texas, one time in fruit for Texas.

A FRUIT FLY (Ceratitis colae Silvestri) in coffee cherries in mail for Maryland at Washington, District of Columbia.

MEDITERRANEAN FRUIT FLY (Ceratitis capitata (Wied.)) 50 times; at Miami, Florida, 3 times; at Mobile, Alabama, one time; at Tampa, Florida, one time; at Boston, Massachusetts, one time; at Baltimore, Maryland, one time; at Savannah, Georgia, one time; at Honolulu, Hawaii, 13 times; and at New York, New York, 29 times.

EUROPEAN CHERRY FRUIT FLY (Rhagoletis cerasi (L.)) 14 times; at New York, New York, 13 times, with 2 in baggage for Indiana and New York, respectively, and 11 in stores; and at Houston, Texas, one time in baggage destined for Texas.

ORIENTAL FRUIT FLY (Dacus dorsalis Hend.) 3 times at Honolulu, Hawaii, in baggage destined for California.

A FRUIT FLY (Dacus sp.) in avocado in baggage at Honolulu, Hawaii; in pepper in mail at Chicago, Illinois; and at New Orleans, Louisiana, in stores.

PEACH FRUIT MOTH (Carposina niponensis Wlsm.) in stores at Honolulu, Hawaii.

A WEEVIL (Lixus sp.) in beet in stores at Cleveland, Ohio.

A POTATO WEEVIL (Premnotrypes sp.) 3 times in potatoes; at Pensacola, Florida, in stores; at Corpus Christi, Texas, in stores; and at Miami, Florida, in baggage for a Florida destination.

OCHYROMERA LIGUSTRI, A NEW PEST OF LIGUSTRUM IN THE UNITED STATES

Introduction: On June 8, 1959, a curculionid was found feeding upon foliage of Ligustrum japonicum and lilac in Wake County, North Carolina. Most of the leaves of the large Japanese privet were perforated. Specimens were collected at this time and forwarded by Dr. D. L. Wray, Senior Entomologist, North Carolina Department of Agriculture, Raleigh, to Washington, D. C., for determination. Additional specimens were collected in August of 1959 from the same location of Wake County and forwarded to Washington. Miss Rose E. Warner, Federal taxonomist at the U. S. National Museum, described the species as Ochyromera ligustri n. sp.

Economic Importance: Adults feed on the leaves of host plants; either cutting holes completely through the leaf tissues, or sometimes only partially through, in which case only a netting of tissues remains. Feeding holes vary in size and shape, but the most predominant is a round or oblong hole about 3-4 mm. in length and about 2 mm. wide. Adults will also feed on the pollen in the blooms.

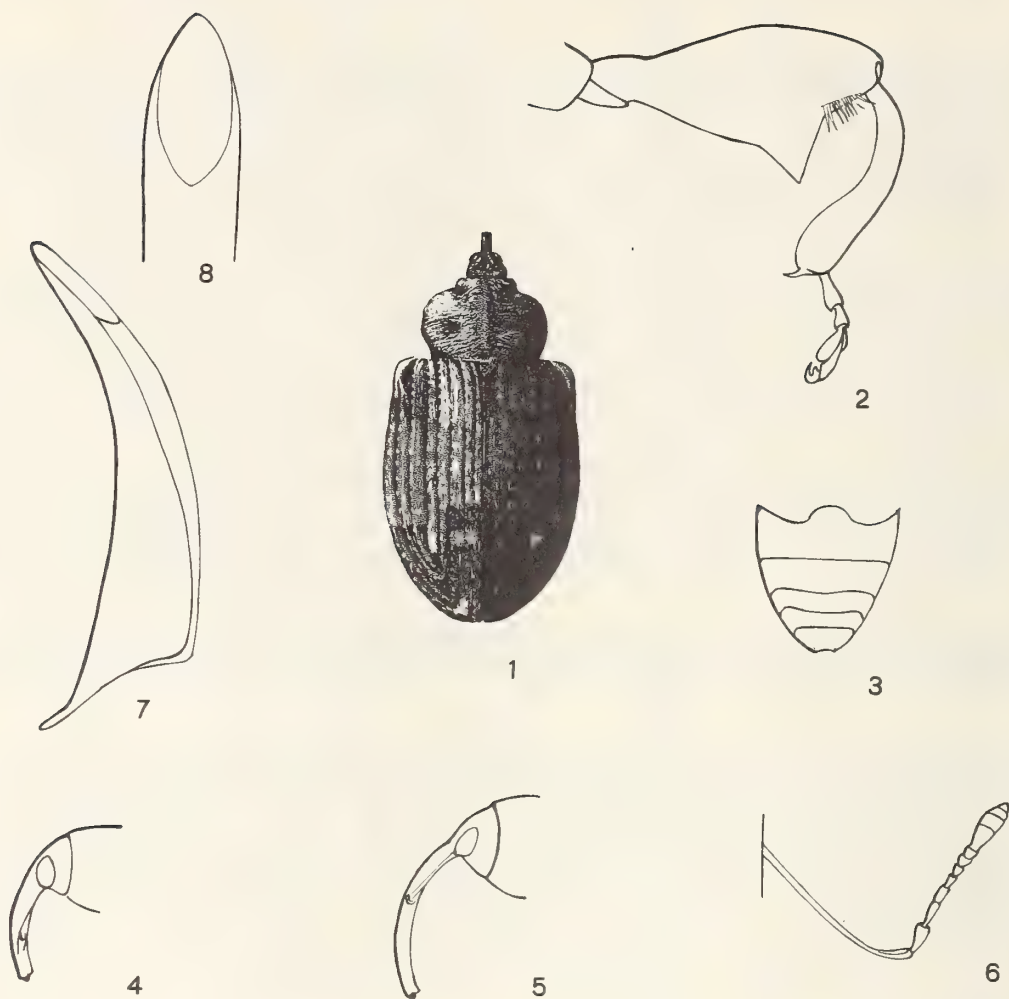
Distribution: The species is believed to be oriental in origin. In the United States, it has been found in Warren, Vance, Wake, Orange, Alamance, Caswell, Guilford, Randolph, Davidson, Forsyth, Davie, Yadkin, Wilkes, Iredell and Mecklenburg Counties, NORTH CAROLINA, and Clemson, SOUTH CAROLINA.

Hosts: Found on most species of privet (Ligustrum spp.) i.e., Japanese privet (L. japonicum), amur privet (L. amurense) and glossy privet (L. lucidum). Also found on lilac and grape leaves.

Life History: In Wake County, North Carolina, adults emerge from the ligustrum seeds around May 15. Females lay their eggs in the seed capsules or fruit just as soon as they are well formed, which is around July 1, depending on the weather conditions and temperature. Larvae hatch within a few weeks and feed on the fleshy fruit and seed capsules during the fall and winter. Apparently there is only one larva to each seed. The infested seed can be found on the ground beneath the shrubs during the late fall or early winter. Larvae become full grown by late April and pupate in early May. Most adults are found in late June and early July. As far as known, only one generation a year occurs.

Description: ADULT - Integument brownish-yellow and shiny; pronotum clothed with recumbent, transverse, golden-yellow scales with a definite median stripe and an ill-defined lateral stripe, laterally, in the middle, with a small, denuded impunctate spot. Elytra with similar golden-yellow hairlike scales and suberect black and yellow setae; apical third darker in appearance. Legs and ventral surfaces also covered with golden recumbent hairs; pygidium exposed, sometimes the apex only in the female. Front femora longer and broader than rest, with an acute simple tooth which projects to a distance equal to half the width of femur in the middle; mid and hind femora smaller and less strongly toothed. Female about 3.9 mm. long and 1.9 mm. wide. Male about 3.7 mm. long and 2.0 mm. wide.

Survey Methods: Check all types of ligustrum or privet, as well as lilac and grape. Older plants, especially the ones in bloom, are preferred. Survey should begin about mid-May when the adults first emerge. Look for feeding signs on leaves (see Economic Importance). It may also be advisable to hold a large piece of paper or cloth under the branches and shake the foliage. Adults, if present, will fall from the leaves. Be sure not to shake the plant before you are ready to do so. (Prepared in Survey and Detection Operations in cooperation with D. L. Wray and R. E. Warner). CEIR 12(23):6-8-62.



Figures of Ochyromera ligustri Warner: 1.- Adult. 2. - Anterior view of prothoracic leg. 3. - Outline of visible abdominal sterna. 4. - Lateral view of male rostrum. 5. - Same of female. 6. - Antenna of female. 7. - Outline of lateral view of median lobe of male genitalia. 8. - Dorsal view of apex of median lobe of male genitalia.

References: 1. Warner, R. E. 1961. Coleopterists' Bul. 15(4):121-124.
2. Wray, D. L. 1961. Ibid. 15(4):119-120. 3. Wray, D. L. 1960. North Carolina Dept. Agr. Ins. Surv. Inf. Note No. 1, 1 p. (Mimeographed).

STATUS OF SOME IMPORTANT PESTS IN THE UNITED STATES

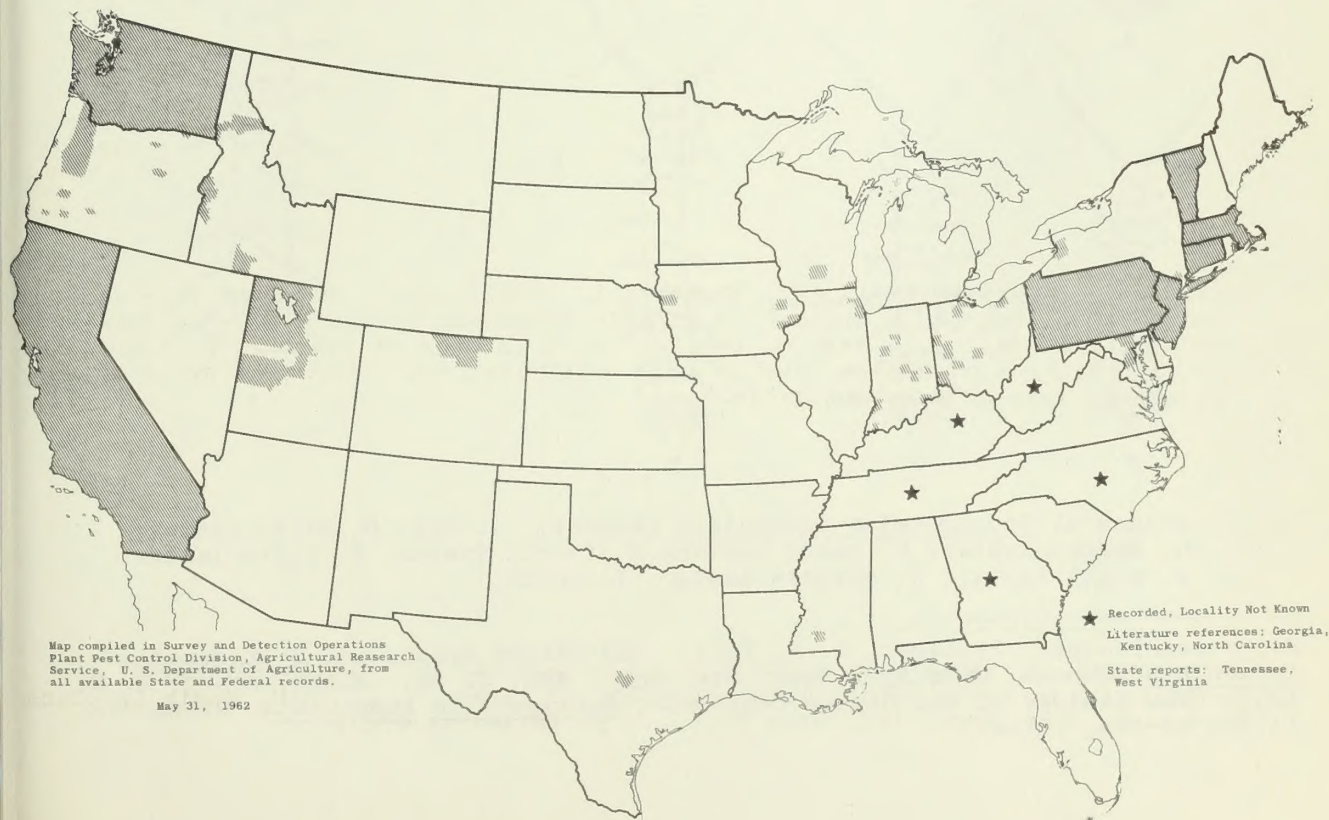
GARDEN SYMPHYLAN (Scutigere*lla* immaculata (Newport))

Economic Importance: The garden symphylan is frequently reported as a serious pest in greenhouses as well as in truck and home gardens. It has been considered to be among the 10 more important pests in Oregon and Washington in recent years. Rhubarb, beans and strawberries were damaged so severely during the 1961 season as to necessitate replanting in the Willamette Valley of Oregon. This animal, which has some of the characteristics of centipedes (Chilopoda), proturans and bristletails (Insecta), has become as important economically as its insect relatives. The name "Symphyla" was chosen in 1881 to indicate this phylogenetic affinity.

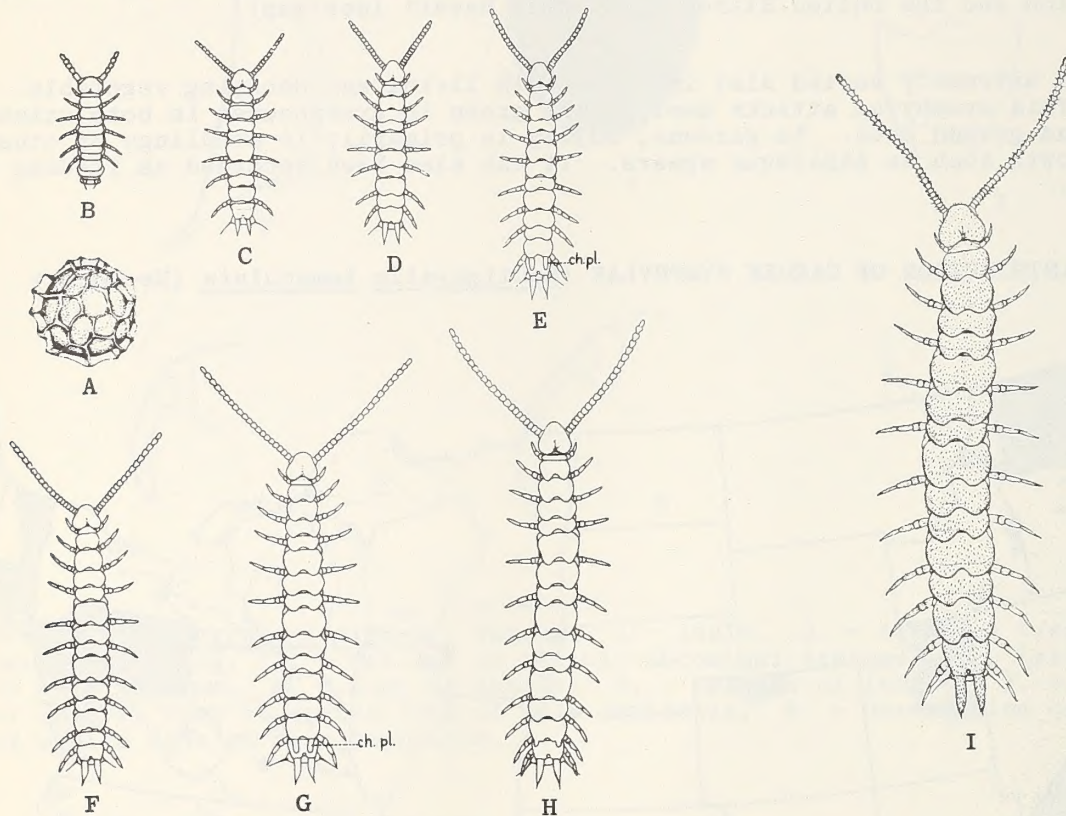
Distribution: Widely distributed throughout Europe and parts of North Africa, this species has been recorded in the Western Hemisphere in Argentina, Canada, Cuba, Mexico and the United States, including Hawaii (see map).

Hosts: The extremely varied diet includes both living and decaying vegetable matter. This symphylan attacks most plants grown in greenhouses in both raised benches and ground beds. In gardens, injury is primarily to seedlings or other tender growth such as asparagus spears. It has also been recorded as feeding on mushrooms.

DISTRIBUTION OF GARDEN SYMPHYLAN (Scutigere*lla* immaculata (Newport))



Life History, Habits and Description: An eyeless animal with a complex metamorphosis, the garden symphylan may live for several years and may have in excess of 50 molts. It inhabits only moist places and is almost entirely subterranean throughout its life. It is unable to force its way through the soil because of its delicate structure and must confine its movements through natural cracks and crevices. EGG - About 0.5 mm. in diameter, pearly white and covered with a network of tiny ridges. Eggs are laid in runways in soil in clusters of 5 to 15 or more. Various investigators state the incubation period to be 7 to 21 days. IMMATURE - Newly hatched instars have 6 pairs of legs and 6 obvious antennal segments. They acquire one additional pair of legs for each of the next 6 molts, or until the seventh instar, when the full complement of 12 pairs are developed. During this period, 18 to 21 additional antennal segments are formed, making a total of 24 to 27 on the seventh instar. ADULT - Very delicate, light cream color and so transparent that food in the alimentary tract shows through. The adult continues to molt and add additional antennal segments which may be regenerated if broken off. Adults range in length, according to various investigators, from 2 to 9.5 mm., with 5-8 mm. a more common measurement. Sexual maturity occurs some time after the seventh molt. (Prepared in Survey and Detection Operations in cooperation with other ARS agencies). CEIR 12(23):6-1-62



Stages of Scutigerebella immaculata Newport: A, egg; B, first instar; C, second instar; D, third instar; E, fourth instar; F, fifth instar; G, sixth instar; H, seventh instar; I, adult.

Major references: Filinger, G. A. 1931. The Garden Symphylid, Scutigerebella immaculata Newport. Ohio Agr. Expt. Sta. Bul. 486, 33 pp. Michelbacher, A. E. 1938. The Biology of the Garden Centipede, Scutigerebella immaculata. Hilgardia 11(3): 55-148, illus.



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